



This is a digital copy of a book that was preserved for generations on library shelves before it was carefully scanned by Google as part of a project to make the world's books discoverable online.

It has survived long enough for the copyright to expire and the book to enter the public domain. A public domain book is one that was never subject to copyright or whose legal copyright term has expired. Whether a book is in the public domain may vary country to country. Public domain books are our gateways to the past, representing a wealth of history, culture and knowledge that's often difficult to discover.

Marks, notations and other marginalia present in the original volume will appear in this file - a reminder of this book's long journey from the publisher to a library and finally to you.

Usage guidelines

Google is proud to partner with libraries to digitize public domain materials and make them widely accessible. Public domain books belong to the public and we are merely their custodians. Nevertheless, this work is expensive, so in order to keep providing this resource, we have taken steps to prevent abuse by commercial parties, including placing technical restrictions on automated querying.

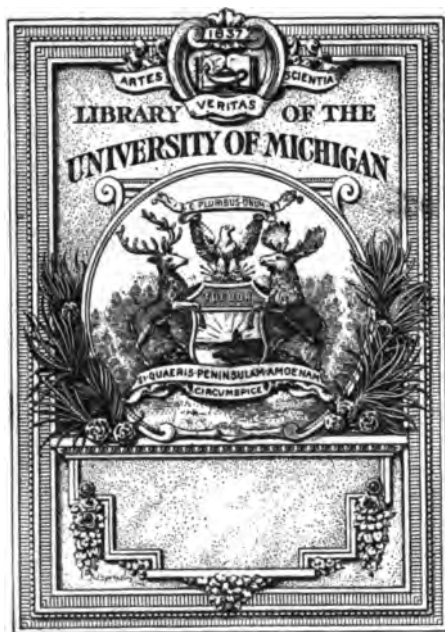
We also ask that you:

- + *Make non-commercial use of the files* We designed Google Book Search for use by individuals, and we request that you use these files for personal, non-commercial purposes.
- + *Refrain from automated querying* Do not send automated queries of any sort to Google's system: If you are conducting research on machine translation, optical character recognition or other areas where access to a large amount of text is helpful, please contact us. We encourage the use of public domain materials for these purposes and may be able to help.
- + *Maintain attribution* The Google "watermark" you see on each file is essential for informing people about this project and helping them find additional materials through Google Book Search. Please do not remove it.
- + *Keep it legal* Whatever your use, remember that you are responsible for ensuring that what you are doing is legal. Do not assume that just because we believe a book is in the public domain for users in the United States, that the work is also in the public domain for users in other countries. Whether a book is still in copyright varies from country to country, and we can't offer guidance on whether any specific use of any specific book is allowed. Please do not assume that a book's appearance in Google Book Search means it can be used in any manner anywhere in the world. Copyright infringement liability can be quite severe.

About Google Book Search

Google's mission is to organize the world's information and to make it universally accessible and useful. Google Book Search helps readers discover the world's books while helping authors and publishers reach new audiences. You can search through the full text of this book on the web at <http://books.google.com/>


B 3 9015 00209 947 4
University of Michigan - BUHR



6171
J26
R43

VOL. I

\$1.00 PER ANNUM — 10 CTS. PER NUMBER

No. 1

JOURNAL

15129

OF THE

Respiratory Organs

EDITED BY

J. MOUNT BLEYER, M. D.

PUBLISHED MONTHLY

January, 1889

NEW YORK

NAPOLÉON THOMPSON, PUBLISHER

51 AND 53 MAIDEN LANE

FOR SALE BY J. H. VAIL & CO., MEDICAL PUBLISHERS, BOOKSELLERS AND IMPORTERS,
NO. 21 ASTOR PLACE, NEW YORK

ENTERED AT THE NEW YORK POST OFFICE AS SECOND CLASS MATTER

CONTENTS.

| | PAGE. |
|--|-------|
| INTRODUCTORY..... | 2 |
| ORIGINAL ARTICLES: | |
| Hydrogen Gas.—Therapeutically considered; its availability in Phthisis Pulmonalis.—Translated from the French by SAMUEL S. WILLIAU, A. M., M. D. | 8 |
| SELECTED ARTICLES: | |
| Presidential Address on the Progress of Laryngology.—By SIR MORRILL MACKENZIE, M. D., of London, delivered before the British Laryngological and Rhinological Society..... | 5 |
| ANALYTICAL RECORD OF CURRENT LITERATURE: | |
| On the Mechanism of the Nose as regards Respiration, Taste, and Smell.—By GREVILLE McDONALD, M. D., of London..... | 8 |
| Some Clinical Features of Diphtheria, and the Treatment by Peroxide of Hydrogen.—By G. B. HOPE. | 10 |
| Excessive Hæmorrhage following upon Galvano-Cautery Treatment of an hypertrophied Tonsil.—WERNER in the <i>Wurtemberg Med. Correspondants Blatt</i> | 10 |
| Suggestions regarding the management of Phthisical Patients at health resorts.—By ISAAC HULL PLATT, M. D., of Lakewood, N. J..... | 10 |
| The Treatment of Laryngeal Phthisis with Calcium Phosphate.—By P. MASUCCI, of Naples, Italy ... | 12 |
| Notes on the Treatment of Inflammation of the Frontal Sinuses.—By RALPH W. SEISS, M. D., of Philadelphia, Pa | 12 |

To ensure the early insertion of abstracts, authors are requested to *send a copy of any journal* which may contain a contribution on disease of the throat, nose and lungs, or on cognate affections, to the EDITOR, Dr. J. MOUNT BLEYER, 88 Second Ave., N. Y. City.

Afin de s'assurer une prompte insertion de leurs extraits, les auteurs sont priés d'envoyer un numéro de tout journal contenant un article quelconque sur les maladies de la gorge, du nez et des poumons, et sur les affections qui y ont rapport, au Rédacteur du *Journal of the Respiratory Organs*, Dr. J. MOUNT BLEYER, 88 Second Ave., N. Y. City.

Um die rechtzeitige Veröffentlichung von Auszügen zu sichern, werden die Verfasser gebeten, eine Copie von allen Zeitschriften, die einen Beitrag über Krankheiten des Kehlkopfes Nase u. s. w. und Lunge enthalten, an den REDACTEUR des JOURNAL OF THE RESPIRATORY ORGANS, Dr. J. Mount Bleyer, 88 Second Ave., N. Y. City, zu senden.

JOURNAL OF THE RESPIRATORY ORGANS.

A MONTHLY JOURNAL.

JANUARY, 1889.

J. MOUNT BLEYER, M. D., EDITOR,
88 Second Avenue, N. Y. City.

NAPOLÉON THOMPSON, PUBLISHER,
51 & 53 Maiden Lane, N. Y. City.

Contributors are invited from all parts of the world, whether subscribers or not.

All exchanges, books for review, and communications pertaining to the Editorial department should be addressed to the Editor.

All letters relating to advertising, subscriptions, reprints, or other business, should be addressed to the Publisher.

The Editor does not hold himself responsible for opinions expressed by contributors.

The publication day of this Journal is the 15th day of each month.

INTRODUCTORY.

It is believed that the time has come for the publication of a journal devoted to the Respiratory organs. So much has been achieved in this department of medicine during the last twenty-five years, that in the regard of both the profession and the public it has acquired recognition and a certain amount of independence. In the further advance in every right direction, the JOURNAL OF THE RESPIRATORY ORGANS is intended to give important aid, not only to the specialist, but also to the general profession.

The Editor of the periodical of which this is the initial number, has not undertaken its publication under the impression that the field of medical journalism is by any means unoccupied. The enterprise is begun, therefore, with a knowledge that success will attend it in case only that it shall prove worthy the patronage of the profession. It is intended to furnish a medium for the communication and interchange of ideas upon the diseases of the nose, mouth, throat and lungs.—The co-operation will be secured of writers, the character of whose researches in this branch of medicine entitles them the consideration, and

who will, it is believed, contribute something of value to the general stock of knowledge on these important subjects.

It will also be the endeavor of the Editor to give the patrons a faithful *résumé* of opinions and practices pertaining to these parts of our medical knowledge gathered from contemporary publications of this and other countries. Careful attention will be devoted especially to translations from German, French and Italian periodicals, so that the readers of the JOURNAL OF THE RESPIRATORY ORGANS may enjoy the advantage of promptly forming acquaintance with the views and practice of investigators and clinicians everywhere.

ORIGINAL ARTICLES.

HYDROGEN GAS.—THERAPEUTICALLY CONSIDERED; ITS AVAILABILITY IN PHTHISIS PULMONALIS.

From the French of Prof. J. N. Demarquay, Surgeon to the Municipal Hospital (Paris), and to the Council of State, Member of the Imperial Society of Surgery, etc., etc.—Translated by Samuel S. Wallian, A. M., M. D., New York.

For a long time known under the name of *inflammable air*, hydrogen has, from the earliest history of pneumatic chemistry, attracted the attention of scientists. Priestley caused small animals to breathe it, and saw them succumb at the end of a few minutes. He ascertained in this way that this gas destroys life as quickly as carbonic acid. Scheele, on his part, made physiological experiments with hydrogen, and the better to judge of the respirability of this inflammable air, he undertook to inhale it. He filled a large bladder with it, and was astonished to find that he could breathe it without inconvenience. The abbot Fontana, in view of the results obtained by Priestley and Scheele, which seemed in themselves to be contradictory, undertook a series of new experiments in connection with it, which he made the subject of a memoir addressed to the Royal Society of London.*

It resulted from Fontana's experiments that animals with an active respiration, like birds, die in this gas in a very few minutes, but without convulsions. Having afterwards repeated Scheele's experiments, on himself, by the aid of a bladder containing 80 cubic inches of hydrogen, he discovered that by breathing *into* the bladder, that is to say, by inspiring the gas contained in the bag and returning to the same the products of respiration, he could really breathe this inflammable air without inconvenience, and that at the end of eleven inspirations it was so little changed by the process that it would still burn like pure hydrogen. Fontana even declared that this gas, inhaled in this manner, was more agreeable to breathe than atmospheric air. He felt at once light; his chest expanded with greater freedom, as in the mountains; he had never, he declared, experienced similar sensations, not even when breathing oxygen. Encouraged by his first trials, he desired to vary the method of experimentation. He prepared a large quantity of hydrogen with which he filled a receiver, over water, and began to inhale the gas anew, but without causing the products of respiration to be returned to the receiver. He was not able to inhale beyond the third inspiration; in fact, after the second he already experienced serious oppression.

Chaussier established, by experiments on animals, that the respiration of hydrogen causes the blood and, in fact, all parts of the body, to assume a bluish tint (cyanosis). Regnault and Riesel caused animals to breathe an atmosphere very rich in hydrogen, and announced the following phenomena:

"The respiration of animals in an atmosphere in which hydrogen replaces nitrogen is performed exactly as if in normal atmospheric air, *except that the absorption of oxygen appears to be greater*. This probably results from the fact that the animal is compelled to respire more abundantly to restore the excessive loss of animal heat consequent upon the contact with hydrogen, of which the refrigerant action is much greater than that of nitrogen."

At the end of the experiment nearly

* *Philosophical Transactions*, abridged edit., p. 526, 1779.

the whole of the hydrogen which had been introduced into the bell is still found there; the small proportion which disappears having probably replaced nitrogen within the body of the animal. This result augments the apparent exhalation of nitrogen, and shows a corresponding diminution of exhaled hydrogen.

Does this lowering of the temperature of animal bodies in hydrogen gas argue a special action of this gas upon the organism? We are very willing to believe it; and perhaps there is a close relation between this phenomenon, observed in case of animals, and the tendency to sleep which the respiration of this gas produces in men, as has been observed by several scientists. Berzelius cites an experiment, made at Stockholm by Charles de Wetersledt, upon a consumptive young girl, in which sleep followed the use of the gas. The patient having respired a mixture of four parts hydrogen and one part oxygen for a quarter of an hour, a quiet sleep followed, although she was suffering from habitual insomnia. Every time the experiment was repeated the same effect was observed.

Again, Allen and Pepys had seen guinea pigs quickly fall asleep from inhaling a mixture of common air and hydrogen.

* * * * *

A remarkable fact in connection with this gas is its great solubility in the blood. Water dissolves but 15 volumes of this gas, while it dissolves 25 volumes of nitrogen. In the peritoneum and in the cellular tissues these gases are soluble in an inverse ratio to their solubility in water. From analogy nitrogen should disappear in the tissues much more rapidly than hydrogen; but, on the contrary, it is absorbed with remarkable slowness.

This anomaly is, however, only apparent, since according to the laws of gaseous diffusion, hydrogen should present a strong tendency to diffuse itself in the atmosphere, which contains none of it; whereas nitrogen, by reason of the volume it occupies in atmospheric air, ought to readily mingle in large proportion with hydrogen. On the contrary, when hydrogen has been absorbed and exhaled (into a receiver?), nitrogen will

no longer be absorbed. * * *

* * * There is, in fact, no way to cause any toxic or even chemic action on the part of hydrogen, which strongly resists direct combinations except when in a nascent condition, as is well known. And Regnault and Riesel have proved, by experiments upon animals, that *we may substitute hydrogen for nitrogen in the atmosphere, without the least inconvenience to the animal breathing it, even when the experiment is protracted to 24 hours.* * * *

Thus hydrogen has been employed, as has been already intimated, to combat chronic affections of the chest. * *

A patient suffering from phthisis, who was under my care, very much liked to inhale this gas, and in spite of my prescription of it, he acquired the habit of inhaling about a cubic foot at a time. This quantity was sufficient to pleasantly quiet his nervous system. Sometimes it induced partial asphyxiation. * *

* * * A consumptive who for many months had been obliged to take opium regularly every evening in order to sleep, abstained from this drug for one day, and inhaled hydrogen. His sleep was much more profound and restful than usual. * * *

Beddoes reports another case of insomnia, in a case of phthisis, in which inhalations of hydrogen produced the same happy result. He also believed it would prove beneficial in cases of bronchial catarrh in the acute stage; and actually had good results in a case of acute inflammation of the lungs, using 7 parts common air with 1 part hydrogen. The fever abated and the severe pains of the patient were notably relieved. Another case, which had been ushered in by a chill, was quickly relieved by a similar mixture. In still another case of acute pulmonary catarrh, diluted hydrogen did not sensibly relieve; but breathing the pure gas caused prompt cessation of cough and subsidence of fever. The subject of this observation, Thomas Rolph, who had previously suffered from similar attacks, and consequently had been enabled to study the comparative efficacy of various remedies, in his own personal experience, declared, that with

hydrogen he had obtained as much relief, and had made as much progress toward recovery, as in a week with the aid of all other therapeutic agents.

Dr. J. Anderson reported to Beddoes a case of phthisis in which hydrogen exercised a most salutary influence. Unfortunately, too few details are given by which to judge of its value.

Burdin, it appears, has also treated with success a certain number of cases of pulmonary phthisis by the use of hydrogen. Here, again, details are so meagre that we are compelled to accept his statements with a degree of reserve.

[The foregoing extracts, from the able work of Prof. Demarquay, are quite sufficient to suggest a wide and almost untrodden field for investigation. —TRANS.]

SELECTED ARTICLE.

PRESIDENTIAL ADDRESS ON THE PROGRESS OF LARYNGOLOGY.

By Sir Morrill Mackenzie, M. D., London.

(An address before the British Laryngological and Rhinological Society.)

GENTLEMEN :—My first duty on taking possession of the presidential chair, to which your suffrages have called me, is to thank you for the high honor which you have conferred on me. I consider it a much more than a mere honorary distinction to be chosen to preside over such an assembly as this. To be the first president of a Society, numbering among its members, the foremost workers in the field of medical science to the cultivation of which, my own professional life has been devoted, is a dignity and a privilege peculiarly gratifying to me. It will be my endeavor to justify your selection by striving to be something more than a figure-head—ornamental or the reverse—as presidents have been sometimes known to be.

In discharging the duties of my office, I have to think, not like certain great monarchs, that the eyes of the predecessors are on me, but that I am setting an example and establishing precedents for my successors. The Society whose formal entrance on life we are met here to-

night to celebrate is, I feel, destined to play a most important part in the furtherance of our knowledge of diseases of the upper air-passages, and of our ability to prevent and cure them. But the scientific work which it will perform, valuable as that cannot fail to be, is not its only title to independent existence. Our Society embodies in concrete form the development and tendency, the efforts and aspirations, of laryngology. It gives a "local habitation and a name" to the speciality such as it has never yet had before the public eye in this country. The Laryngological Association supplies a bond of professional union among throat specialists in the United Kingdom which has hitherto been wanting. It has, therefore, a double function—the advance of laryngology, and the promotion of proper *esprit de corps* among its professors. Under both these aspects the Society will, there can be no doubt, be of the greatest use to the younger generation of specialists; and I, as representing the older race, who had to fight their way to professional recognition without these advantages, now bid God-speed to the youngest of the medical societies of London.

To us veterans the successful establishment of the Laryngological Association is doubly satisfactory, as it is, if I may say so, a monument of our past labors as well as an earnest of future progress to be achieved by young toilers. A very few years ago such a Society would have been impossible, not from the lack of objects of scientific activity, but from the want of men. Twenty-five years ago throat surgery was in the hands of anyone who chose to "swab out" the larynx, or, to speak more exactly, the upper surface of the epiglottis, with nitrate of silver. But the invention of the laryngoscope created a new era. The new speciality, of course, became at once a target for the *francs-tireurs* of the medical press to shoot at. The profession would probably have heard of a new religion with equanimity, of a new vice with interest, but a new speciality was a thing which would not be tolerated.

I shall not indulge in the harmless amusement of flogging a dead horse for

your edification. Specialism needs no no defence at my hands, and, besides, I have already said all that I care to say on that matter elsewhere. As for our own speciality in particular, it has had the ordinary fate of every great movement in the healing art, since medical corporations have been in existence. The laryngoscope was at first ridiculed as a "toy," then declared to be useless, and finally it was gravely stated, in a leading medical journal, that "without its uses throat diseases were perfectly well treated in every general hospital in London." How great a change has taken place since that time can best be estimated by the presence of the distinguished assembly which I have now the honor of addressing. There can be no doubt that laryngology has ceased to be the "poor relation" which it was once thought to be—it is no longer the Lazarus feeding on the crumbs that fell from the table of the medical Dives who had taken all disease to be his province. It has forced its way to its proper position, and now carries its head as high as any of its sister specialities. It appears to be even in danger of becoming fashionable—at any rate, the number of its votaries has lately been increasing and multiplying with a rapidity which makes one inclined to wonder with Abernethy, "what is to become of them all."

But, however bad for the individual the crowd of competitors may be, it is an unmixed benefit for suffering humanity, for science, and, let me add, for this Society. We do not dread the increase of the laryngological population, nor wish for any Malthus to teach us how to check it; in whatever number they come we can find room for them all, and we shall be glad to accept not only their subscriptions, but their contributions to our funded capital of knowledge. Nor do we wish to confine our membership exclusively to specialists. We are ready to welcome all who are interested in the subjects which interest us, provided they are serious workers who can help us in any way. We are specialists in no narrow sense, but wish to cultivate our own corner of the field of medicine with every kind of assistance that may be

available. *Fiat lux* is our motto, from whatever quarter the light may proceed; we are not, I hope, so foolish as to accept no other source of illumination than the laryngological lamp.

That the establishment of this Society marks an epoch in the progress of our speciality will not, I imagine, be denied by any one whose mental vision is unblurred by personal prejudice. The objections which have been raised to its creation in certain quarters are so trivial as hardly to call for serious notice. Thus we are assured that there is no need for our Society, because the British Medical Association was this year graciously pleased to assign a separate section, at its general meeting, to laryngology. But even supposing that this arrangement were permanent, can it be seriously contended that what I may, perhaps, without too much irreverence call a "scratch" assemblage of peripatetic specialists, held during three days in the year in the midst of every sort of temptation to pleasure-making, is sufficient for the discussion of matters interesting to members of our fraternity, for the interchange of scientific ideas, the ventilation and criticism of new theories, the demonstration of new methods of diagnosis and treatment, the exhibition of new apparatus, and the manifold purposes which can only be fulfilled by personal meeting and debate? The suggestion is, I venture to say, one of the worst insults that has ever been offered to laryngology; for it implies that the subject is so narrow as to require only a few hours for the adequate report of the progress made in the foregoing year, with full discussion of all the points involved therein. It is understood that our speciality was constituted an independent section this year in recognition of the excellent work which was done in the Laryngological Sub-section last year in Dublin; but in consequence of the comparative failure of the section at Glasgow, next year laryngology is to be combined with otology at Leeds, an arrangement equally inconvenient to two sets of specialists.

No one has a warmer appreciation of the British Medical Association than I

have. There is certainly no medical organization which has done so much good during the past fifteen years as it has done. Every member must feel proud of the *Journal*, and many of us must look back with pleasure to the great annual medical assemblies we have attended. I myself have the greatest reason to be grateful to the Association, as some of my earliest and most enduring friendships were formed at its pleasant gatherings; but this does not blind me to the fact that such a body is very unsuited to control the destinies of a great and important speciality; so far from the British Medical Association giving us advice, there are many of us who could give very useful advice to the Association. Twenty-five years ago, when I first began attending the annual meetings, there were no lectures at all. The members met in one large hall, and the papers that were read were of a character calculated to interest the whole medical profession. Those who wished to hear certain papers attended the meetings, and those who did not think they should be edified stayed away; but now, owing to the fact that interesting subjects are read in different sections at the same time, those who attend the annual meetings are very frequently prevented from being present at discussions which they would like to attend. Indeed, the multiplication of sections and sub-sections has, in my opinion, enormously diminished the usefulness and interest of the annual meetings. It may be desirable, or even necessary, to recognize such broad distinctions as surgery, medicine, and perhaps obstetrics; but I feel sure that a large number of the profession must agree with me that the undue multiplication of sections is a great drawback. I recollect once attending a meeting of an Otological Section. There were six members in the room; these consisted of the President, Secretary, the reader of the paper, and the surgeon who was apparently present to oppose him (all these four were London practitioners); there were also two young gentlemen who looked as if they were attending a preliminary course of instruction at the provincial hospital before coming to London; and I was myself the

seventh victim. After waiting a few minutes and hearing a discussion on the ever-fertile subject, catarrh of the middle ear, I was hesitating as to how I would leave the room without hurting the feelings of my London friends. Signs of distress were actively shown when I made preparations for departure, and the President, a distinguished London aurist, even said, in a stage whisper, "Don't go; there is something very interesting coming on." I yielded to the blandishments of the President, but after another ten minutes, the reader of the paper not seeming to be making much headway, I withdrew, my example being followed by the two young students, who seemed extremely grateful to me for having given them a lead. This is, I believe, a very fair specimen of a meeting of one of the minor sections of the British Medical Association.

In any case, these homely little parties do not give the laryngologists of the United Kingdom anything like the opportunities of personal intercourse, or of that attrition of mind with mind, which are essential to progress.

What, after all, is the advantage of scientific gatherings of all kinds? Is it not to make workers in the same field acquainted not only with each other's labors, but with each other's person and character? A man's theories can be read, and the value of them can be gauged to a certain extent by the written words; but adequate allowance for the "personal equation" can only be made by those who know the man in his mental habits as he lives, his intellectual temper, his general character, and even his physical constitution. This practical knowledge, so necessary for the proper discounting, of dogmatic assertions, sweeping generalizations, and enthusiastic anticipations, can only be acquired by seeing the man and hearing his living voice. This is what makes medical societies the greatest instruments of medical progress; the fire of debate separates base metal from true, more quickly and more effectually than volumes of printed criticism. Hitherto, laryngologists in England have been almost without the means of judging of each other's quality, and estimating

the value of each other's work. It is ridiculous to say that the general medical societies give them sufficient facilities in this direction; it would be just as reasonable to say that there is no need for journals devoted to the specialty, because the *Lancet* and the *British Medical Journal* can occasionally be induced to publish an article on the laryngological subject. Again, it is quite a different matter to read a paper on a special subject before a general medical society and before a select body of experts. The general society is pleased, no doubt, and possibly enlightened; but it can pass no trustworthy judgment on the work presented to it, which is forthwith buried in the limbo of its *Transactions*, whence it may be years before it is disinterred by some laborious inquirer. Further, a general society is more or less helpless as to the quality of papers on special subjects which may be offered to it. The work of specialists can only be appraised at its true value by their professional peers, that is to say, only by their brother specialists. One not unimportant function of an Association like ours is to winnow the wheat from the chaff, to eliminate the refuse, and preserve the useful matter. Nothing can compensate for the want of the shock of minds which is as the breath of life to scientific societies; and laryngology, no doubt, in this country has suffered from this cause. If our Society does nothing beyond supplying this want, it will amply justify its existence.

The talk about a Laryngological Society leading to "isolation" is the merest claptrap. It is, indeed, the old familiar bogey held up for the terror of the youthful mind in the form of the awful consequences which must follow the divorce of laryngology from general medicine. No laryngologist, so far as I am aware, has the slightest wish to be "independent" of general medicine, any more than the captain of a coasting steamer wishes to be "independent" of navigation. Surely specialists may gather together to compare notes as to details of their work without surrendering the scientific principles which unite them to the general body of their profession. Are members of the Society of Antiquaries in the dan-

ger of becoming "independent" of general history? Do the members of those highly-specialized bodies, the Shelley or the Browning Societies, run any serious risk of forgetting that there are other poets beside those to whom their chief worship is paid?

These, gentlemen, are the principal objections which I have heard to the foundation of this Society, and it is significant that so far they have only been heard in one quarter; and the voice that utters them has remained without echo, like "the voice of one crying in the wilderness." I need not, it seems to me, pursue the subject further. Whatever objections there may be to its existence, the Laryngological Association has passed beyond the region of argument, and is now a reality which must in future be reckoned with. It remains for all of us to use every effort to make its actual work worthy of the objects for which it has been founded, and of the hopes with which its birth has been hailed.—*Journal of Laryngology and Rhinology*, Dec., 1888.

(To be continued.)

ANALYTICAL RECORD

OF CURRENT LITERATURE RELATING TO THE
NOSE, THROAT AND LUNGS.

ON THE MECHANISM OF THE NOSE AS REGARDS RESPIRATION, TASTE, AND SMELL.

By Greville Macdonald, M. D., London.

Certain experiments have lately been made on the functions of the nose as regards the raising of temperature and hygrometric condition of the inspired air, as well as certain deduction from clinical observation.

By the simple device of connections a tracheotomy cannula with one nostril, has proved it possible for a tracheotomy patient to breathe through the nose, the inspired air passing in at one nostril and out at the other. By a valvular arrangement attached to the tracheal end of the connection tube, the expired air is prevented from passing into the nose; while in the nasal termination a sensitive thermometer is placed which will indicate

the temperature of the inspired air after traversing the nasal cavities.

It occurred to him that it would be a perfectly simple matter to connect the tracheal end with the mouth instead of to the trachea, and that so experiments might be made upon ordinary individuals. In this manner experiments have been conducted. It is found that the effort at drawing the air through the tube attached to the mouth is sufficient to close the post-nasal space completely, and so cut off the nasal from the buccal cavities. And this contraction of the soft palate is quite involuntary, or at least unconscious. But, to prevent all source of error, a valvular arrangement similar to that used on the tracheotomy patient was employed.

The same method of passing the air through the nose was adopted in estimating the hygrometric condition. A measured bell jar was held over water by an assistant who allowed it to sink as the air was exhausted by the lungs. Connected with the upper opening of this was a vessel containing chloride of calcium, which in its turn carried tubing fastened in one nostril. Thus, a measured quantity of dry air would pass through the nose. The connection between the other nostril and the mouth contained in its course three chloride of calcium tubes, which abstracted the moisture contained in the air after passing through the nose. The whole of this circuit was weighed before and after the passage of a known quantity of dry air through the nose, the difference giving the hygrometric condition.

He gives the observation on temperature:

| | |
|---------------------|---|
| At -7° C., | the air was raised to 28.8° C. |
| At 1.7° C. | " " 35° C. |
| At 7° C. | " " 84° C. |
| At 12° C. | " " 35.6° C. |
| At 45° C. | it was reduced to 33.6° C. |

These are but a few of a great number of experiments on different individuals. The robust raise the temperature two or three degrees higher than the anæmic. A noteworthy fact is that cocaine, by inducing collapse of the inferior turbinated bodies, will lessen the acquired temperature by two or three degrees. doubtless this throws some light on the functions of these structures, although it

would appear that they are not directly of much importance in imparting caloric.

In estimating the quantity of aqueous vapor absorbed, he found that it varies considerably according to the barometric pressure in the nose. For instance, he found that any alteration in the arrangement of the tubes causing respiration to be more difficult increased the amount of water and *vice versa*. Hence any degree of stenosis in the nose would result in an additional degree of saturation in the inspired air. In most of his experiments there has been more or less obstruction to easy respiration, and in some the weight of aqueous vapor has almost doubled that of saturated air at the temperature of the nose and the external barometric pressure. One may consequently assume that the air on passing through the nose is always saturated with water as well as raised to the temperature of the blood, and that the usual statements in the text-books as to the quantity of moisture exhaled by the lungs are incorrect. Ordinarily, there must always be a *minus* pressure in the nose during inspiration and a *plus* during expiration, and one may even suppose a slight deposit of dew in the respiratory passages during expiration, this excess of moisture being reabsorbed by the next inspired air. Cocaine applied to the nasal mucous membrane lessens the amount of moisture absorbed.

He discusses the course pursued by the inspired current of air in connection with the senses of smell and taste. The orifice of the nostrils lies for the most part a quarter of an inch or so below the floor of the nasal fossæ. This arrangement obviously tends to give some of the indrawn current an upward as well as a backward direction, so that the middle as well as the inferior meatus is used for respiratory purposes. That such is the case we can readily satisfy ourselves by considering the changes in position of the alæ during olfaction. In the presence of an unpleasant smell, we instinctively "turn up the nose," in common parlance, or, in other words, contract the levatores labii superioris alæque nasi, and so bring the external opening of the nose on a level with the floor of the inferior meatus. Contrarily, when we wish to enjoy an agree-

able odor, we sniff it up. The levator labii superioris alaeque nasi, may be considered to facilitate respiration through the inferior meatus. These muscles are one of those accessories to inspiration.

The olfactory nerve is divided into two main divisions, an anterior and a posterior, the former being distributed over the middle turbinated body and septum, while the latter is confined to the superior spongy body. This latter again is almost, if not quite, sheltered from the inspired air by the overshadowing middle turbinated, so that it can hardly take part in what is commonly designated as smell. With expiration, however, its position and importance is reversed. The expired air is driven vertically upwards, and odoriferous particles from the mouth such as flavors, would take the same course. In each case the superior turbinated bone would lie exposed to their influence.

Certain clinical observations have considerable weight in his argument. In inflammatory and other affections of the nose it is very frequently observed that smell is abolished without taste being deteriorated. Frequently he heard such patients aver that, although they have altogether lost their sense of smell, they can sometimes *taste*, as they say, bad odors when forcibly inhaled through the nose. This last observation further suggests that on the superior spongy being reached either by inspiratory or expiratory efforts, in either case the nerve stimulation is interpreted subjectively as taste rather than smell.—*British Medical Journal*, Dec. 1st, 1888.

SOME CLINICAL FEATURES OF DIPHTHERIA, AND THE TREATMENT BY PEROXIDE OF HYDROGEN.

By G. B. Hope.

Rational treatment will depend upon some local agent, which will destroy the specific germ before full development of the constitutional infection. Most active germicides have poisonous or irritant nature, limiting their utility to surface or open wound application. In peroxide of hydrogen, the author thinks that if not a specific, at least we have a

most efficient topical agent in destroying the contagious element, and limiting the spread of its formation, and an agent which is, moreover, without any bad constitutional effect. The author's results confirm those previously published by Bleyer. Hope prefers a fresh standard—Marchand's preparation of fifteen volumes—and instead of swabbing the throat he prefers a steady coarse spray under an air pressure of twenty pounds or more. The force of the spray should be sufficient to cleanse the surface and destroy necrosed elements. With peroxide of hydrogen, the exudation is not liquefied, but the cells are broken up, and freed from the entangling fibrous mass. In most cases, two applications a day are sufficient, if thoroughly performed, to arrest all dangerous extension and accomplish the gradual resolutions of the local formation.—*Medical Record*, October, 1888.

EXCESSIVE HÆMORRHAGE FOLLOWING UPON GALVANO-CAUTERY TREATMENT OF AN HYPERTROPHIED TONSIL.

Werner (Markgronnigen).—*Wurtemberg Med. Correspondants Blatt.*, No. 81, 1888.

A very excessive hæmorrhage occurred five days after the galvano-caustic treatment of an hypertrophied tonsil, that the patient became so anæmic, and so reduced to a condition of extreme danger. The patient was only saved by a compression which was made to the carotid for ten days. This case also shows that galvano-cautery treatment is not free from complications.

SUGGESTIONS REGARDING THE MANAGEMENT OF PHTHISICAL PATIENTS AT HEALTH RESORTS.

By Isaac Hull Platt, M. D., Lakewood, N. J.

The author intended his paper merely as a note calling attention to some mistakes which he has observed in the conduct of patients in search of health, no doubt due to lack of proper instruction from their home physicians, and also to some measures of treatment which he has found useful in the cases of such patients.

He calls the attention to the factors in the etiology of pulmonary phthisis by saying that they are so many, so complicated, and impossible to determine the precise chain of causes. Patients ought to be removed from the environment in which they have lived and where they contracted the disease and developed a predisposition. The patient should be placed under conditions far removed as possible from those in which he has previously been living. Believes in its benefit by removing its cause. But says that much more benefit may be derived from a judicious use of climate. In the application of climate it depends upon two things. *a.* The selection. *b.* The direction of the invalid's life, while away from home.

He says that many who came away from home to journey to seek climate and came away without any direction from their physician, more harm is done than good. He cites a case illustrating this fact. The most frequent errors on the part of patients are the frequenting of hotel parlors during the evening, when they are overheated; remaining within doors, during the daytime; over-exertion; medication unsuited to their condition.

He certifies according to his understanding the objects in a change of climate—

First.—The influence of the rarefied air of high altitudes, which has an undoubted beneficial effect upon properly-selected cases, probably by increasing respiratory activity. *Second.*—The substitution of a purer and consequently more nearly aseptic atmosphere for that in which the patient has lived. *Third.*—In case the patient is a resident of a city, the opportunity of spending a greater portion of the day in the open air. *Fourth.*—The escape from the conditions under which the disease has probably developed. *Fifth.*—The mental and moral stimulant of change *per se*.

With the exception of the first and last, they are negative; that is, they are attempts to escape from unfavorable conditions to those less so.—High altitudes seem suited to those cases retaining a certain amount of vigor, in which the

heart is sound, and in which the disease has not progressed too far, and where the bronchitis or nervous irritability are not too great to endure the highly-stimulating atmosphere. Cases suited to this form of climatic treatment require little or no medicine, should remain as much as possible in the open air, should practise mountain-climbing, one of the most potent adjuncts to the expansive action of the rarefied air, stopping, of course, short of overfatigue.

Closely connected with the subject of fresh air is that of exercise.

The author believes in obtaining pure air exercise, an out-of-door life, and says it is one of the greatest sources of benefit in climatic change. He gives a descriptive plan of a sanitarium or hotel that he would design.

With regard to the question of climatic treatment applied to phthisis, he groups them into three general classes: *First.*—Those who are merely threatened with the disease or, having developed some slight signs, do not suffer from much constitutional disturbance, pyæmia, or loss of strength and appetite. *Second.*—Those in whom the disease is more advanced, who have become to some degree emaciated and debilitated, who may be suffering from pyrexia or anorexia, in short, who are actually ill, and yet not beyond the hope that climatic change with judicious treatment will result in alleviation or arrest of the disease. *Third.*—Those cases where advanced destructive changes in the lungs, combined with evidences of rapid progress of the disease, show them to be hopeless, and render it improbable that change of climate will do sufficient in the way of alleviation to recompense them for the loss of home comforts.

The first class consists of those cases most suitable for high altitudes and an out-door life. They should receive instructions to spend their time as much as possible in the open air and to take exercise suited to their strength, the best form of which, for those who are strong enough to endure it, is, undoubtedly, mountain-climbing, from its action in expanding the lungs. In these cases, as in all others, the place selected should be

one where there is no stint of good, wholesome food. Beyond attention to these points this class of cases should not need much treatment, but they should be instructed to seek medical advice upon the first appearance of any new development.

Of the third class of cases, those with advanced disease, it is unnecessary to say anything, as they are not proper subjects for climatic treatment. The intermediate class is the one requiring the most careful and judicious management. If it is decided to send a patient of this class away from home, it is essential in the choice of a place to consider not only the suitability of the climate to the patient's condition, but the character of his proposed surroundings with regard to comfort.

No place, however, is suitable for these patients unless supplied with a reliable physician. He should be instructed to report to the local physician upon his arrival.

The general management of patients at health resorts does not differ from the home treatment.

Lung expansion can be best accomplished in those cases where the patients are strong enough for mountain-climbing and other forms of active exercise, or passive expansion by means of the Dr. J. Solis-Cohen's modified Waldenberg compressed air apparatus. This apparatus is combined with a slight modification of Semple's atomizing inhaler, by means of which a fine nebulized fluid is suspended in the compressed air and inhaled with it.

Nutrition of patients is undoubtedly the most important indication of treatment, but difficult to fulfil. If this cannot be persisted in, owing to gastric catarrh or indigestion, resort is had to gavage, practiced twice or thrice daily, and when there is much gastric catarrh lavage once a day. He gives between meals preparations of a reliable beef peptinoids. Lavage and gavage undoubtedly form our most powerful means of increasing nutrition and are well borne. In regard to gavage, it is found that it is better borne when performed with the small short tube with a

forcing-bottle as described in Dujardin-Beaumetz's "New Remedies," than when the stomach-tube is used.—*The Therapeutic Gazette*, Nov. 15, 1888.

—O—

THE TREATMENT OF LARYNGEAL PHTHISIS WITH CALCIUM PHOSPHATE.

P. Masucci (Napel).—(*Sulla cura della tubercolose laringea col fosfato di calce — Rassegna critica, etc.*)—Jan., 1888.

In a critical discussion and experimentation of Kalischer, Froschaner, Schnitzter, Rethi, and Moses, Masucci does not think that calcium phosphate, or iodoform, can supplant the use of lactic acid.—The treatment after Heryng is considered up to the present time the best.

—O—

NOTES ON THE TREATMENT OF INFLAMMATION OF THE FRONTAL SINUSES.

By Ralph W. Seiss, M. D., Philadelphia.

The author, judging from a perusal of the recent literature upon this subject, says that the treatment of inflammation of the frontal sinuses is imperfectly understood by the general surgeon, and says that notes on improved methods of technique with their results seem timely.

Bosworth describes the two frontal sinuses as two irregular cavities which lie between the two tables of the frontal bone. Found absent in children, and become developed in adult age. They communicate with the nares by the infundibulum, a rounded canal which opens into the middle meatus. They are lined with a vascular mucous membrane covered with ciliated epithelium, which is continuous with that of the nasal cavities.

The causes—unless due to external violence, to the presence of neoplasms, foreign materials in their lumen, or inflammation of the brow sinuses—always dependent on intra-nasal disease. Without the rare causative factors—which are described in text books—the author finds almost every stage and variety of Rhinitis presents a corresponding condition in the frontal sinuses.

The author goes on to state that in all severe cases of acute coryza, the infundibulum is more or less occluded by swelling, and there is hyperæmia of the lining mucous membrane of the frontal cavities, as clearly shown by marked brow pain and the sense of distention in the supra-orbital region. In aggravated cases of this disease true inflammation of the frontal sinuses is found; where a patient is suffering from a severe acute coryza "takes fresh cold," and as a result the nasal inflammation is greatly increased, the patient complains of great pain in the region of one or both frontal cavities, which is soon followed by external tumefaction, the face often being curiously distorted by the swelling, and the upper eyelid oedematous.

Constitutional symptoms, consisting of pyrexia, and great nervous disturbance. Later, in the course of favorable examples, there is a marked muco-purulent or sanious discharge from the nasal passage of the affected side. In the worst type of cases a true abscess forms, which may penetrate the anterior wall of the sinus or, in syphilitic subjects especially, or perhaps exclusively, the abscess may perforate into the cavity of the cranium.

The symptoms in such cases are of the gravest character: delirium, coma, and paralysis ending in death, if not relieved by operation, are usual, or may make an imperfect recovery delayed by many complications. This grade of severity is exceedingly rare, and may nearly always be prevented by proper treatment during the earlier stages. Permanent dilatation of the frontal sinus may result from repeated attacks of purulent inflammation, causing much facial deformity. In all cases of chronic rhinitis, especially of the advanced and sclerotic type, there is interference with nasal drainage and partial stenosis of the infundibulum, with the resulting symptoms of persistent frontal headache, and a sense of tension in the supra-orbital regions. Subjects who have inherited or acquired the "catarrhal tendency"—extreme liability to "take cold" resulting in all the symptoms of acute coryza, but lasting for a few hours only, or a day or two at most—frequently suf-

fer greatly from brow pain, often of considerable severity and repeated at frequent intervals, from acute hyperæmia of the frontal sinuses which they not infrequently regard as the most serious symptom of their disease.

Lastly, in some cases of chronic nasal inflammation, especially of the true atrophic type, there is an actual chronic purulent inflammation of the frontal sinuses, pus being discharged through the nasal cavities—this condition is, however, not common.

The treatment of hyperæmia of the brow sinus is very satisfactory. The first indication is to reduce intra-nasal congestion, and thus relieve stenosis of the infundibulum. Muriate of cocaine is an agent perfectly suited to meet this indication: cotton soaked with not above ten drops of a five per cent. solution, is tucked up over the anterior portion of the lower turbinated body, by means of a very delicate ear forceps, and allowed to remain about five minutes. The result is immediate, and frequently permanent relief from the tissue contraction; the pledget being removed, the intra-nasal region should be gently sprayed clean with some mildly stimulating, but entirely unirritating, antiseptic formulæ. After this a powder composed of morphine, atrophine and bismuth is used for insufflation into the region of the infundibulum.

In mild cases, frequently no further treatment will be called for, or if somewhat severe in character, one or more daily repetitions will cure the case. Attention to the condition of the digestive tract, and a mild cathartic may be given. The bromides of potassium and sodium given in large doses, three to four drachms in the first twenty-four hours, and two drachms *per diem* subsequently, have often had an admirable effect on this condition in his hands.

Where deformity is evident, and the pain great, more energetic measures will be called for. In addition to the intra-nasal applications, he invariably orders atropine sulphate internally, $\frac{1}{16}$ th of a grain, every hour for sixteen hours, or until the throat is very dry. If there is decided tumefaction in the region of the

sinus externally, a blister of cantharidal collodion should be placed over the frontal sinus or just above it. The symptoms may be expected to abate in twenty-four hours.

The treatment of cases where pus accumulation has been found in the frontal sinuses has heretofore been of a severely heroic character (trephining the anterior wall). The operation is regarded by the writer difficult and of much danger, but recommends trephining the anterior plate—as a preliminary step.

Jurasz, in several cases, introduced a fine metal probe in the frontal sinuses through the infundibulum, thus opening a drainage canal for the products to escape. The author remarks that trephining is called for rarely; if done, cicatricial deformity is great, and the dangers of sepsis increased; only marked constitutional or cerebral symptoms can only justify its performance. Opening the infundibulum by means of a probe seems to the writer unscientific and dangerous, and as its result, inflammation and stenosis of the canal. He recommends the above procedure, and thereby the accumulation will be discharged and a cure effected without operation or deformity.

In chronic rhinitis, with marked catarrhal headaches, the author says that they can be permanently relieved by treatment of the naso-pharynx without special attention being directed to the sinuses. If drainage from the infundibulum is interfered with by either vascular or fibrous intra-nasal swellings, they should be “tacked down” by the author’s modification of Bosworth’s technique.

A small cotton tuft saturated, but not dripping, with a five per cent. solution of cocaine muriate is placed in contact with the area to be operated upon, and allowed to remain for from four to eight minutes; tight contraction of the tissues is the result. A recently made, fully saturated solution of chemically pure chromic acid is then to be used in the following manner: a light, steel cotton-carrier, such as is used in ear work, is to be tightly bound at its extremity with a tuft of cotton, which when wound on the probe must not be above two millimetres in diameter, or more than one centimetre

long. This pad being saturated with the acid, and carefully mopped with dry cotton until dripping is impossible, is to be carried, under full inspection, to the point of greatest hypertrophy (decided upon *before* the cocaine was applied), and held firmly in contact with the mucous membrane for at least twenty seconds.

Great condensation of the turbinated tissue at the point of contact results, together with a slough of varying, but always shallow, depth; the ultimate and speedy effect being to bind down firmly and permanently the offending mass of tissue. A strong solution of bicarbonate of sodium should always be at hand, and if the acid show any tendency to spread, it must be liberally mopped over the seat of the eschar. Two or three “tackings” assure good infundibular drainage, and along with general intra-nasal applications and bromides internally.

The “catarrhal tendency” calls for treatment by regulated bathing, open-air exercise, proper clothing, and strychnine sulphate in progressive doses; the *gouty diathesis* will be found with extreme frequency in this condition, and advanced *neurasthenia* is frequently causative of the “catarrhal tendency,” and will call for appropriate therapeutic measures. A very aggravated catarrhal diathesis is very frequently associated with *irritable heart*.

Chronic purulent inflammation of one or both frontal cavities are of rare occurrence. The prognosis is generally very unfavorable. As to the treatment,—he says that if the nasal inflammation can be controlled and the infundibulum kept patulous, the frontal symptoms will cease. The author cites one of this kind which he treated by the repeated use of the Faradic current; the positive pole being placed well up in the nares in the region of the infundibulum, and the negative over the brow. Blisters over the frontal cavities have yielded good results in his hands. Bromides, iodides and ammonium chloride are valuable.

In the conclusion of his paper he states emphatically that all the inflammatory diseases of the frontal sinuses, above noted, are wholly dependent on intra-nasal conditions.—*Medical News, Jan. 5, 1889.*

CH. MARCHAND'SChemist, Graduate of the Ecole Centrale des
Arts et Manufactures, Paris.**SPECIALITIES****PEROXIDE OF HYDROGEN**Solution H_2O_2 **CHEMICALLY PURE MEDICINAL,**

Process Patented March 6, 1888,

GLYCOZONE

O. P. Glycerina saturated with active Ozone.

These are the most Powerful, HARMLESS, ODORLESS of all Antiseptics known, for both Internal and External use.

CAUTION.—No METALLIC substance must come in contact with these antiseptics.

CH. MARCHAND'S

Peroxide of Hydrogen, must be kept below 65° F.
Glycozone, must be kept below 80° F.

Why is it? That Peroxide of Hydrogen and Glycozone are not yet universally used by the medical profession?

1. *Because* :—Until Chas. Marchand's Peroxide of Hydrogen C. P. medicinal, was placed on the market, the so-called Peroxide of Hydrogen manufactured by others and sold by druggists, was totally unfit for medicinal purposes, owing to its impurities; and only fit for technical purposes.
2. *Because* :—The great majority of physicians have not as yet become acquainted with the proper ways to apply these antiseptics. Any information desired will be mailed free of charge on application.
3. *Because* :—Owing to the large demand for Chas. Marchand's Peroxide of Hydrogen medicinal, imitations and substitutes are being forced on patients, when physicians do not especially specify on their prescription:

Charles Marchand's Peroxide of Hydrogen, 15 Vol. capacity, medicinal.
Charles Marchand's Glycozone,

therefore we respectfully call attention to this fact, which is, in many cases, the cause why good results are not secured. By so prescribing, the profession will be protected against *unscrupulous druggists and manufacturers*, who are base enough to place the physician's reputation as well as the life of his patient in *jeopardy* by substituting worthless imitations.

Chas. Marchand's Peroxide of Hydrogen and Glycozone are put up only in 4 oz., 8 oz. and 16 oz. bottles, bearing his label and signature.


PRICE-LIST.**PEROXIDE OF HYDROGEN**

Solution C. P. medicinal, 15 volumes capacity.

| | |
|-------------------|------------------|
| In 1 lb. bottles, | Per doz., \$9.00 |
| In 8 oz. bottles, | " 5.25 |
| In 4 oz. bottles, | " 3.50 |

GLYCOZONE.

| | |
|-------------------|-------------------|
| In 1 lb. bottles, | Per doz., \$36.00 |
| In 8 oz. bottles, | " 21.00 |
| In 4 oz. bottles, | " 12.00 |

FOR SALE BY ALL RELIABLE DRUGGISTS.

Factory and Laboratory,

ERNEST DREVET,

10 West 4th Street, near Broadway, New York.

GENERAL DIRECTIONS

CONCERNING THE USE OF

CHARLES MARCHAND'S

Peroxide of Hydrogen and Glycozone.

Glycozone is used as a substitute for Iodoform, Iodole, Carbolic Acid, Bichloride of Mercury, Salicylate of Soda, Permanganate of Potash, Boracic Acid, etc., etc.

In cases of **Ulcers and Old Sores**:

1st. Wash with lukewarm water.—2d. Cleanse with 10 to 15 volumes, solution Peroxide of Hydrogen medicinal.—3d. Apply the Glycozone as a dressing on lint or punk : half Glycozone and half Glycerine C. P.

Applied once or twice daily, it will keep the diseased surface perfectly clean and sweet, and rapidly stimulate healthy granulations. No irritation needs to be feared.

For **Indolent Ulcers, Gangrenous Ulcers, etc.**, do as prescribed above, except that Peroxide of Hydrogen 15 volumes and Glycozone be used full strength.

In **Ulceration of the Cervix Uteri**, administer injections with a 3 to 4 volumes solution Peroxide of Hydrogen and apply the Glycozone on lint : 1 part Glycozone for 2 to 3 parts of Glycerine C. P.

This treatment is safe, sure and speedy in its action.

Sore Throat.—Anginas.—A solution of Peroxide of Hydrogen 2 to 4 volumes taken as gargle or irrigations will cure more rapidly than any other treatment.

Diphtheria.—Copious irrigations or gargles should be administered hourly with the above solution ; the Glycozone must be prescribed as an internal treatment, $\frac{1}{2}$ to 1 teaspoonful in a wine glass full of tepid water every four hours.

In **Phthisis**, deep inhalations of Peroxide of Hydrogen's vapor will bring relief to some extent. To do this, any vaporizer apparatus made of glass or hard rubber, such as Dr. J. Mount Bleyer's Ozonizer should be used.

Asthma must be treated in the same manner.

Special Directions will be mailed on application.

For internal use of Glycozone in Typhoid fever, Malarial fever, Small Pox, Scarletina, Measles, Whooping Cough, Dyspepsia: The dose will vary according to the age of the patient and judgment of the physician.

DOSE : One teaspoonful, diluted in water, taken after meals, will give very satisfactory results.

Solutions of Peroxide of Hydrogen for local use.

| | |
|--|--------------------------|
| On mucous membranes, injections, etc., | Solution 2 to 4 volumes. |
| Fresh wounds, | " 4 to 8 " |
| Chronic and indolent ulcers, | " 10 to 15 " |
| All surgical dressings, | " 6 to 10 " |
| Sprays, douches, irrigations and gargle, | " 2 to 4 " |
| Irrigation of cavities, | " 12 to 15 " |
| Nebulization—Inhalation, | " 15 volumes diluted |
| with chemically pure glycerine in the proportion of half and half. | |

The above solutions are obtained as follows :

2 to 4 oz. of the 15 vol. Ch. Marchand's Peroxide of Hydrogen for 14 to 12 oz. distilled water, give the 2 to 4 vol. solution.

4 to 6 oz. Peroxide of Hydrogen 15 vol. for 12 to 10 oz. distilled water, give the 4 to 10 vol. solution.

12 oz. of the 15 vol. Ch. Marchand's Peroxide of Hydrogen for 4 oz. distilled water, give the 12 vol. solution, etc.

 Please mention this paper.

JOURNAL

OF THE

Respiratory Organs

EDITED BY

J. MOUNT BLEYER, M. D.

COLLABORATORS

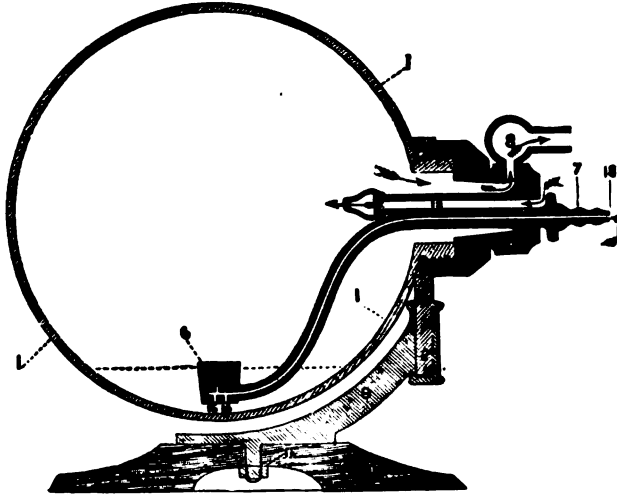
Dr. R. P. LINCOLN,
New York City.Dr. LOUIS F. SAAS,
New York City.Dr. DAVID H. GOODWILLIE,
New York City.Dr. ANDREW H. SMITH,
New York City.Dr. C. SLOVER ALLEN,
New York City.Dr. BENJAMIN F. WESTBROOK,
Brooklyn, New York.Dr. MOREAU R. BROWN,
Chicago, Illinois.Dr. W. H. GEDDINGS,
Aiken, South Carolina.Sir MORELL MACKENZIE, M. D., Lond.
London, England.Prof. F. MASSEI,
Naples, Italy.Dr. PROSSER JAMES,
London, England.Dr. G. HUNTER MACKENZIE,
Edinburgh, Scotland.Dr. J. GOTTSTEIN,
Breslau, Germany.E. CRESSWELL BABER, M. B., Lond.
Brighton, England.Dr. GEORGE W. MAJOR,
Montreal, Canada.

February, 1889

NEW YORK
NAPOLÉON THOMPSON, PUBLISHER
51 AND 53 MAIDEN LANE

FOR SALE BY J. H. VAIL & CO., MEDICAL PUBLISHERS, BOOKSELLERS AND IMPORTERS,
NO. 21 ASTOR PLACE, NEW YORK
BOOKS FOR REVIEW CAN BE SENT TO THE ABOVE ADDRESS.

THE GEYSER VAPORIZER.



THE GEYSER VAPORIZER, by means of a new and simple device, enables us to dispense with all forms of suction tubes, thus obviating the chief source of annoyance. The point of exit for the compressed air being surrounded by the fluid to be vaporized, a denser vapor is produced than by the old method. This will be appreciated by those who use the hand pump, for we produce more vapor with one-third less air than any vaporizer or inhaler in the market.

By doing away with the suction tubes we are enabled to use a heavy liquid, such as fluid cosmoline, and it is not necessary to use any more air to vaporize heavy oils than a thin liquid.

The plate represents a cross-cut section of the new GEYSER VAPORIZER No. 2. The glass globe—six inches in diameter—is shown by Fig. 1. The only opening in this globe is furnished with a neck on which is a coarse thread. Fig. 2 is a metal ring held in position on the neck by the hard rubber collar, Fig. 8. Fig. 2 has a stem as shown, fitted into a socket in the metal support, Fig. 9. Figs. 2, 9 and 10 support the glass globe and hold it firmly in place. A hard rubber collar, Fig. 8, is screwed and cemented to the neck of the globe. A hard rubber, hollow cork, Fig. 4, is fitted by means of a ground joint to the collar, Fig. 8. The air and vapor tubes pass through this cork at the point indicated by Fig. 5. The compressed air tube, Fig. 13, with a nipple at Fig. 7, for the connections, passes through the cork and curves down till it terminates at the bottom of the globe in a rubber cup, Fig. 6. Two small holes in the cup, at 15 and 16, admit only just enough of the material to be vaporized to cover the escape hole in the tube at 14. Fig. 8 is the tube for the escape of the vapor. Fig. 12 shows a tube terminating in a valve, which allows air to enter the globe *in aid of a deep inhalation*, but does not permit the escape of any vapor, and the patient breathes as free as though they were inhaling directly from the atmosphere.

MANUFACTURED BY

A. G. ARMSTRONG,

54 East 23d St., New York.

CONTENTS.

| | PAGE. |
|--|-------|
| SELECTED ARTICLES: | |
| A new and only way of raising the Epiglottis.—BENJ. HOWARD, A. M., M. D., F. R. C. S. E..... | 50 |
| ANALYTICAL RECORD OF CURRENT LITERATURE: | |
| Examination of the Throat and Nose of two thousand children to determine the frequency of certain abnormal conditions.—W. FRANKLIN CHAPPELL, M. D., M. R. C. S. ENG., of New York..... | 66 |
| Anatomy of the Nasal Chambers.—HARRISON ALLEN, M. D., Philadelphia | 68 |
| Obscure case of Laryngeal Stenosis: Tracheotomy.—FREDERIC BATEMAN, M. D., F. R. C. P. | 70 |
| Some practical hints in connection with Intubation of the Larynx.—Dr. J. MOUNT BLEYER, of New York | 70 |
| Enlarged Tonsils.—What shall we do with them?—Dr. CHARLES M. SHIELDS, Richmond..... | 73 |
| Sarcoma of the Tonsils.—ALEXANDER W. MACCOY, M. D., of Philadelphia..... | 73 |
| Effect of Nasal Inflammation on the Mind.—THOMAS F. RUMBOLD, M. D., St. Louis, Mo..... | 73 |
| Diseases with personal names..... | 73 |
| High altitudes in Grave's Disease.—EDITORS OF LANCET, London | 73 |
| On the Ptyalism called "Essential," a symptom of Adenoid Vegetation.—CANTOUX..... | 73 |
| Disorders of Speech in the Insane.—FRANCIS LLOYD, of Northampton..... | 73 |
| On the dangers to life in operations for hair-lip and the causes of the high mortality.—J. TAUBERG, Fredrikshald, Norway..... | 74 |
| New signs of Grave's Disease.—Prof. CHARCOT, Paris | 74 |
| BOOK NOTICES..... | 74 |
| INDEX to the latest Literature upon the diseases of the Nose, Throat, Lungs and Cognate Affections... | 74 |

To ensure the early insertion of abstracts, authors are requested to *send a copy of any journal* which may contain a contribution on disease of the throat, nose and lungs, or on cognate affections, to the EDITOR, Dr. J. MOUNT BLEYER, 83 Second Ave., N. Y. City.

Afin de s'assurer une prompte insertion de leurs extraits, les auteurs sont priés d'envoyer un numéro de tout journal contenant un article quelconque sur les maladies de la gorge, du nez et des poumons, et sur les affections qui y ont rapport, au Rédacteur du *Journal of the Respiratory Organs*, Dr. J. MOUNT BLEYER, 83 Second Ave., N. Y. City.

Um die rechtzeitige Veröffentlichung von Auszügen zu sichern, werden die Verfasser gebeten, eine Exemplar von allen Zeitschriften, die einen Beitrag über Krankheiten des Kehlkopfes Nase und Lunge enthalten, an den REDACTEUR des JOURNAL OF THE RESPIRATORY ORGANS, Dr. J. Mount Bleyer, 83 Second Ave., N. Y. City, zu senden.

JOURNAL OF THE RESPIRATORY ORGANS.

A MONTHLY JOURNAL.

APRIL, 1889.

J. MOUNT BLEYER, M. D., EDITOR,
83 Second Avenue, N. Y. City.

NAPOLÉON THOMPSON, PUBLISHER,
51 & 53 Maiden Lane, N. Y. City.

Contributors are invited from all parts of the world, whether subscribers or not.

All exchanges, books for review, and communications pertaining to the Editorial department should be addressed to the Editor.

All letters relating to advertising, subscriptions, reprints, or other business, should be addressed to the Publisher.

The Editor does not hold himself responsible for opinions expressed by contributors.

The publication day of this Journal is the 15th day of each month.

SELECTED ARTICLES.

A NEW AND ONLY WAY OF RAISING
THE EPIGLOTTIS.*

BENJ. HOWARD, A. M., M. D., F. R. C. S. E.,
Formerly Lecturer on Surgery in the University of New York;
Professor of Surgery and Surgeon to Long Island College
Hospital, Brooklyn, New York; and Professor of
Surgery in the University of Vermont.

The epiglottis, mysteriously described by the ancients as "standing at the gateway of life," attracted from a very early period a good deal of curious attention and speculation. Concerning its functions Hippocrates wrote, Plato disputed, Galen experimented, but nearly all of them disagreed.

As a factor in apnoea—to which my remarks will be confined—the introduction of anæsthetics gave to the epiglottis a new, familiar, and momentous interest; but contrast to the contentions which, down to the time of Magendie and Pinel, continued about its functions, what was taught at first respecting the epiglottis, and the method for its supposed elevation in apnoea has been taught ever since, and is everywhere taught now. This teaching, which to-day governs universal practice, is, I think, correctly expressed as follows:—

1. When the unconscious state deepens into the insensitive state called apnoea, the epiglottis falls backward and closes the glottis.

2. In this condition the elevation of the epiglottis is the first thing in order and in importance, as, without this, respiration, whether nat-

*Read before the Medical Society of London, Oct. 22d, 1888.

ural or artificial, is impracticable and the result fatal.

8. The only way by which the epiglottis can be raised is by means of the tongue, as the tongue is brought forward the epiglottis is moved upwards.

For the proposed elevation of the epiglottis by the moving forward of the tongue, the great and good Marshall Hall—who, like most of us, must have experienced the frequent difficulty of getting at it—instituted the pronation of the entire patient. In 1856-57 he wrote:* “The tongue gravitates forward, and draws with it the epiglottis.” In another place, without saying how it is to be done, he writes, that to this end (the raising of the epiglottis) the tongue might be “drawn forward.” To make the drawing forward possible, Sir James Simpson and Mr. Syme used forceps, the practice of applying them to the tongue—not at its tip, but as far back from it as possible—being particularly urged by Sir Joseph Lister.

The only suggestion of a doubt even, not of the practice but of the theory involved, was by the quick-sighted Sir Joseph Lister, who from observations upon his own person, and therefore far removed from the conditions of apnoea which we are considering, inferred, and doubtless for sufficient reasons, that traction of the tongue by forceps induced the elevation of the epiglottis in some cases perhaps, rather from the irritation by the forceps and the reflex action thereby excited than by mechanical action. This suggestion was made without any anatomical explanation, and, though offering another theory, was accompanied by a specially emphatic direction to use the artery forceps upon the tongue without delay, and thus rather confirmed than disturbed what I have just stated as the universal practice, and to which the tongue forceps and jaw priser in every operating theatre bear witness.

Having at intervals, for some years past, continued investigations and experiments in connection with the upper air-passages, I will endeavor to submit in the briefest outline I can, some things I have found containing lessons of practical importance on the subject indicated, reserving such details as might be wearisome to you for publication in such form that you may read them or leave them, according to your future inclination or convenience.

In making the examinations and experiments I shall refer to, I have been careful to secure the conditions identical with those of complete apnoea, the subjects being used within forty-eight hours after death, and when free from rigor.

In certain of the subjects a fenestrum was made in the throat, which exposed the epiglottis without disturbing it. In others, this exposure was effected by the removal of cervical vertebræ, with corresponding parts of the posterior wall of the pharynx. In others, the sections were made so that from one or the other a view

was obtained of each of the parts desired, while avoiding interference with the movements and results to be obtained.

I started with no theories; I have none to suggest now, and in submitting just the facts, I guarantee their correctness only as regards the complete insensitive state, except when I state otherwise.

The diagrams before you I made from drawings which I sketched at the time of examination, and from nature in each instance, and their accuracy will, I think, be in no particular contradicted by the actual dissections before you. By their aid we will consider:—

1. The effect of traction of the tongue; what is done by it, and what is not done by it.

2. A new and only way of raising the epiglottis.

8. Some other important changes in the relations of certain parts of the upper air-passages from the cricoid cartilage to the posterior nares, roughly speaking, they are bounded above by the base of the skull, behind by the cervical vertebræ, anteriorly by the posterior nares, hard palate, velum palati and uvula, the base of the tongue, the hyoid bone of the epiglottis. All these are susceptible of motion more or less extensive. The cavity of the larynx does not now concern us, because it is always the same; the arytenoid cartilages are always entirely separate, the chink of the glottis or entrance to the trachea widely open. The upper boundary, by means of the occipito-vertebral articulations and also of the first and second cervical vertebræ, is susceptible to extensive flexion. The posterior boundary is susceptible to moderate flexion at points corresponding to the first and second cervical vertebral articulations, also between the fifth and sixth and the seventh; while between the seventh and the first dorsal the flexion is greater. Between the third, fourth, and fifth there is practically no flexion; the application of force does not flex them beyond a straight line. The susceptibility to extension, on the other hand, is throughout these parts very great. By careful measurement I find that by means of the occipito-vertebral articulation the base of the skull, including of course the anterior, nares or palati, etc.—can be extended upon the cervical column about 60 degrees, and that the cervical column can be extended upon itself in all about 80 degrees, giving an aggregate extension of the head and neck of about 90 degrees. The bearing of these facts will appear further on.

In the ordinary supine position, I have found always three anatomical causes of obstruction lying across this upper airway.

The first of these is the velum palati and uvula. Whether the mouth is open or shut, the velum is quite flaccid, its free border inclining upwards and backwards, nearly approaching or resting upon the posterior wall of the pharynx; while the uvula, if long, is curled upon itself, in some instances almost completely closing the airway at that point.

The second is the tongue. Equally, whether the mouth be open or shut, this is invariably

*Addressed to Royal Humane Society, London, 1856. “Prone and Postural Respiration,” London, 1867.

found with its dorsum more or less resting upon the posterior wall of the pharynx, the obstruction from this cause as tested by water being sometimes complete.

Third, the epiglottis. This is always found fallen backward over the glottis, its free edge resting upon the posterior wall of the pharynx.

Flexion of the head, in proportion as it is more than that of a right angle with the cervical column, increases the obstruction from each of these causes. This is chiefly due to the fact that as the head is flexed the hard palate descends upon the tongue, pressing it downwards and backwards, wedging the tongue between the hard palate above and the os hyoides and upper border of the thyroid cartilage below. The resistance of the posterior wall of the pharynx in that case causes the tongue to bulge below, pressing downwards still further the epiglottis, causing impaction of the pharynx there, and a bulging above against the velum, making the closure of the pharynx at that point complete. These observations respecting the falling back of the tongue and of the epiglottis are simply confirmatory of what has been stated often enough before. That respecting the velum confirms what was observed by Dr. Robert Bowles, of Folkestone, in 1880.* The observations he made respecting the effect he had in some cases observed from opening the mouth seem also to be partly confirmed; but what in a single dissection he thought he observed—that the connections between the tongue and the symphysis were too short to allow the dorsum to reach the posterior wall of the pharynx when the mouth was shut—is contrary to my own observations in every instance. Turning the head on one side, as he recommended, to correct stertor, I found sometimes partially, but in a slight degree, shifted the upward edge of the tongue, but not if the head was flexed at an angle more acute than a right angle.

With this reminder of the anatomical facts before us, we will, if you please, consider:

1. *Traction of the Tongue: What is done by it, and what is not done by it.*—As the tip of the tongue is pulled forwards, the body of it, I need scarcely say, becomes elongated, thinner, and narrower. Next, the dorsum is shifted forwards from contact with the posterior wall of the pharynx. Resistance is now encountered; this is found to be from the frænum linguæ, which is become very tense. Traction being continued, a second point of resistance is met with, this time from the anterior pillars of the fauces, which, in their turn, become quite tense also. Add to the force, and with it a prising motion, and at the expense of the frænum linguæ, which, where it crosses the lower incisors, becomes lacerated, the anterior pillars of the fauces become slightly more tense. Looking beyond, the glosso-epiglottidean folds, by which the force employed upon the tongue has been supposed to be communicated to the epi-

glottis, will be found, however, to be quite relaxed. If you get larger forceps and pull with greater force, as I have often done, the laceration of the frænum linguæ will be found to increase, the anterior pillars of the fauces to remain nearly as before, while beyond is a dead calm. The relaxation of the glosso-epiglottidean folds still continues as before, while the supreme disappointment of all is this: the epiglottis is seen to be unlifted, undisturbed.

In elucidation of the results described, if a vertical section of the tongue in question be made along the median line, some of the anterior fibres of the genio-hyo-glossi muscles will be found to be lacerated. If the traction be now repeated on either of the two sections, the force will be seen to be chiefly expended through the remaining of these fibres, upon the genial tubercles of the inferior maxilla to which they are attached, while the posterior fibres of the hyo-glossi will be comparatively relaxed. I had supposed the posterior fibres of the genio-hyo-glossi muscles, and, still more certainly, the glosso-epiglottidean ligaments, would serve as media by which the tractile force upon the tongue would, in the former indirectly and in the latter directly, be communicated to and draw upward the epiglottis. The reasons for the disappointment, I believe to be chiefly these. In the case of the genio-hyo-glossi, their attachments to the hyoid bone are not so much to its body as to its greater cornua, and though some surviving force did reach these, their elevation would tend to depression, rather than elevation, of the epiglottis. In the case of the glosso-epiglottidean ligaments, while these consist almost entirely of mucous membrane, the few fibres found within their folds have their origin as we know, not in the tongue, but from near the sides of the tonsils; hence a gap where the supposed line of communication between the tongue and the epiglottis is broken and the tractile force is lost.

An experiment which I have many times repeated by way of demonstration is the following. A subject with a large larynx, well exposed by a fenestrum, is firmly held in an erect position, in which it will be noted the glosso-epiglottidean fossa has for its floor partly, and for its anterior wall entirely, nothing less than the fallen epiglottis itself. The glossy-epiglottidean fossa being then filled with water, traction upon the tongue has been made with various degrees of force. In no case has the water been overturned or spilled.

I will now anticipate the question already doubtless in your minds, and will endeavor to show:

2. *A New and only way of raising the Epiglottis.*—That the essential condition of life—an open glottis—may, in whatever extremity, be surely maintained, there is a distinct mechanism, superficial, always available, so that, whether by volition, instinct, reflex action, or by the effort of another person, the fallen epiglottis may be instantly, surely, and completely elevated.

* "Observations on Stertor," *Transacts. Royal Med. and Chir. Soc.*, 1860.

The central part of this mechanism is the body of the os hyoides. This is the central link of a three-linked chain. By the lower link, the hyo-epiglottic ligament, the body of the freely-movable hyoid bone, is attached to the freely-movable epiglottis below; while the upper link, consisting of three pairs of muscles, the genio-hyoidei, mylo-hyoidei, and the anterior bellies of the digastrici, proceeding from the body of the hyoid bone, are attached to the body of the inferior maxilla above. Thus, the body of the inferior maxilla above is coupled to the epiglottis below.

As the attachments of these muscles to the inferior maxilla are near and on either side of the median line, where is the greatest range of motion, it follows that, if the head be extended but a certain distance, the chain in question becomes straightened and tense. Beyond this point, however slight the additional extension may be, the epiglottis is raised in unison. Continue the extension sufficiently, and the epiglottis becomes instantly, completely, inevitably erect.

As if in anticipation of the critical emergencies connected with apnoea, this special provision is so strictly mechanical, that whether the extension of the head be by volition, instinct, reflex motion, or by the action of another person, whether in health, apnoea, or after death, the same cause produces beyond prevention precisely the same effect.

If you will allow me to go along this same line but a little further I will next point out—

8. *Some important changes in the relations of certain other parts of the upper air-passages to each other, as induced by extension of the head and neck, when carried to its utmost.*—I have already remarked that in the insensitive state, and in the ordinary recumbent position, in addition to the epiglottis, if not of equal importance, there are other anatomical respiratory obstructions, not one of which is without consequence, and for all of which I will endeavor to point out a means of prompt, simultaneous, general correction.

By a series of measurements, I have found, as I have said, that the cervical vertebræ may be extended upon themselves, in all, about 80 degrees; that the occipito-vertebral articulation admits of the head being extended upon the neck about 80 degrees. That is, the head and neck are susceptible of the rather surprising aggregate extension of about 90 degrees, and this by moderate force, in which there is no manner of risk or inconvenience to the unconscious patient.

The correlative changes which are induced in the anatomical causes of respiratory obstruction referred to, as well as those throughout the entire pharynx, by complete extension of the head and neck, are as follows: Posteriorly, the wall of the pharynx, which was horizontal, is now, at its upper and lower parts in particular, bent strongly backwards, and in its general direction is nearly vertical. The base of the skull and the hard palate, which were vertical, are

now horizontal. By this extension the nasopharynx is correspondingly enlarged, and the course of the nares is almost in line with the pharynx.

Anteriorly, this extension of the head acting upon the hyoid bone through the genio-hyo-glossi and mylo-hyoidei muscles, in combination with the very strong dragging of the sternothyroidei and thyro-hyoidei, pull very forcibly forwards all the rest of the anterior wall of the pharynx, including to some extent the base of the tongue also.

The Tongue and Velum Palati.—Gravitation, which before precipitated the dorsum of the tongue into the pharynx, now precipitates it out of the pharynx and into the cavity of the mouth, the roof of which now forms a floor to receive it. The velum palati, by means of the palato-pharyngei muscles, which have for a fixed point the posterior part of the thyroid cartilage and wall of the pharynx, is pulled from the direction of the posterior wall of the pharynx, the entire membrane being stretched tightly forwards and downwards behind part of the dorsum of the tongue, forming a partition which helps to shut the tongue out of the pharynx and into the mouth where it belongs, and with part of the dorsum forms the anterior wall of a now post-oral airway, thus created and maintained. Thus, in its antero-posterior diameter, the entire pharynx is very greatly enlarged throughout, and the upper air-way, which before was a tortuous, angular, flaccid canal, barely, and if at all, uncertainly permeable, is made an enlarged, firm, but slightly curved tube, free throughout, from the glottis to the nares.

This sufficiently completes, I think, the outline I proposed to give of facts observed repeatedly by myself, and verified by distinguished anatomists much more competent than myself to judge of them, at demonstrations made by me at the Royal College of Surgeons of England, at King's College Hospital and Guy's Hospital, London, and at the Hôpitals Salpêtrière and La Pitié, Paris.

I am not unmindful of the bearings these facts respectively have on questions of vital importance in daily practice; but the proposed scope of this paper precludes the consideration of them at length from that aspect.

THE WAY TO MAKE COMPLETE EXTENSION OF THE HEAD AND NECK.

Having, by bringing the patient to the edge of the table or bed, or by elevation of the chest, provided that the head may swing quite free.

With one hand under the chin and the other on the vertex, steadily but firmly carry the head backwards and downwards. The neck will share the motion, which must be continued until the utmost possible extension of both head and neck is obtained.

The degree of extension to be made simply to correct commencing stertor or irregularity of breathing must in each case naturally be left to the judgment of the operator. Simply shutting the mouth or pushing up a flexed chin may of

itself give relief in some cases, because by either of these—as also by jerking forward the angle of the lower jaw, or by turning the head over upon the face—a jarring motion is communicated to the tongue; and by close watching I have observed that, if the head be not too much flexed to allow it, this in some cases causes the occluding tongue at some point in the mouth, but more often in the pharynx, to be slightly dislodged, the water test showing that the airway at that point has thus been slightly opened and is more permeable.

That there may be no possible mistake, however, about the all-important raising of the epiglottis, I wish this to be very precisely and distinctly understood; assuming the mouth to be shut and the inferior border of the inferior maxilla to be at a right angle with the cervical column, as in the average recumbent posture, the head must be continued to be extended from 80 to 85 degrees more before it is possible for the epiglottis to be affected at all. Not until after the skin from the symphysis to the sternum is quite tense do the relaxed muscles in question beneath it become tense at all. These being tense, from this point the elevation of the epiglottis begins. In a nut-shell: Make the line of skin from the chin to the sternum as straight as it can be made, and the complete elevation of the epiglottis is assured.

It is always better to make the extension rather more than rather less than appears to be necessary, because, while an excess can never do any harm, a slight insufficiency might bring to the operator failure, and to the patient death. The further effects of extension, as I have described them, upon the tongue, the velum palati, and the entire pharynx, with the establishment of a free post-oral airway, I wish particularly to emphasise, cannot with certainty be secured except by making the extension of the head and neck quite complete, as directed.

My discovery of the failure of traction of the tongue to raise the epiglottis was to me only a great disappointment, for I had just been publishing what I thought to be an improved way of seizing the tongue for that purpose.

Over against the facts I have submitted I find is the dictum for which I had almost a reverence, but no counter-facts; for, to my surprise, a thorough search has up to this moment failed to discover a single record in which any observer states that he has himself seen the epiglottis raised by traction of the tongue, or in which any reference is made to anybody who has ever been said to have so seen it. Any other way of raising the epiglottis I could not find had ever been contemplated. In the midst of this dilemma I felt sure there must be some way of raising the epiglottis, and that which I have submitted I confess I did not discover until I had looked not a little.

I have ventured to call this way a new way. I do this not because I pretend to say that never before has the epiglottis been thus raised, but because till now we did not know how to do it. In a prize essay published by the Medical

Society of the County of New York—I think in 1866—as well as in my lectures at that time in the University of New York, the position I described and illustrated for the treatment of apnoea is exactly that which inevitably raised the epiglottis; but I did not know it. The “tête-à-bas” position, which Nélaton found so useful in restoring breathing—in which he not only inverted the head, but the entire patient, his motive being hydraulic correction of the cerebral anæmia which he said the chloroform induced, and by which it killed—where it did good, it elevated the epiglottis; but he did not know it.

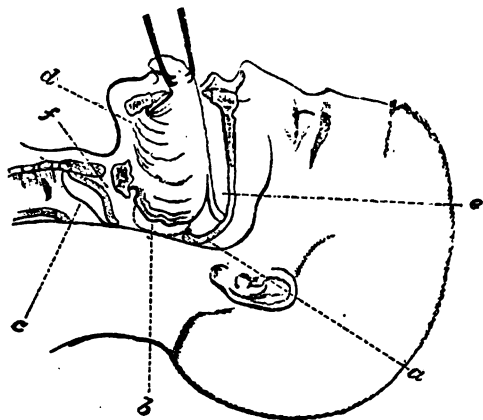


Fig. 1.—The ordinary recumbent position, and the three anatomical obstructions of the airway always found in it, namely, *a*, the velum palati and uvula; *b*, the dorsum of the tongue as indicated by the dotted lines; *c*, the epiglottis, each lying across the airway and against the posterior wall of the pharynx. Traction of the tongue, and what is done by it: The dorsum of the tongue drawn forward from dotted line to thick line *b*; the resistance at frenum and genial tubercles *d*; the further resistance at the anterior pillars of fauces *e*. What is not done by it; The wavy relaxed hyo-epiglottic ligaments *b* are not straightened; hyoid bone below not raised; epiglottis *c* is not lifted.

The swinging by the feet as high backwards and forwards as possible, as I have seen practised on still-born children in Bonn; as also the trick of chucking under the chin, or of seizing and urging forwards the angle of the lower jaw—each of these practices, though done for the only and all-sufficient reason—“the good it did”—effected that good only in so far as it respectively raised the epiglottis. There is no evidence, however, that any of the operators knew it. I know that in 1870, Sir Joseph Lister wrote of pushing up the lower jaw as one of the things which may be tried before using forceps, but he gives no intimation of the way in which it may act to produce that relief beyond what I have already stated Dr. Robert Bowles, of Folkestone, wrote in 1860, * namely, by its drawing

* *Loc. cit.*

forward the tongue, and which, as I have said, a number of experiments by myself have quite failed to corroborate. The dorsum of the tongue, when the mouth is shut, falling against the posterior wall of the pharynx, as much as when it is open. Neither by Sir Joseph Lister nor by Dr. Bowles, however, is the epiglottis once mentioned in this connection.

In this paper my purpose is confined to showing demonstrable facts as I have actually observed them, so I will not discuss the "inference," as Sir Joseph Lister himself calls it, of the suggested elevation of the epiglottis by reflex irritation from the wounding of the tongue, except to remark that I find nothing in the epiglottis itself, nor any direct muscular attachment of it to anything outside of it, by which the always purely passive epiglottis could be thus raised. Its elevation is possible only through the medium of the hyoid bone, by which it is raised, if raised at all, mechanically, and in no other way.

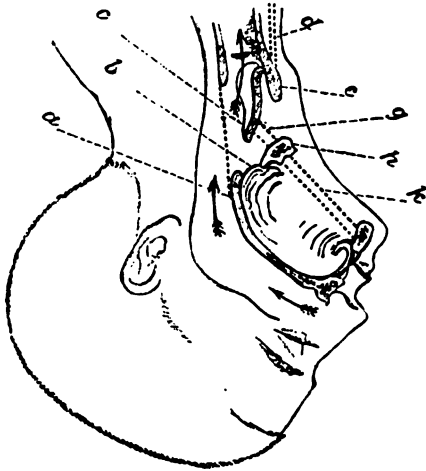


Fig. 2.—Position of complete extension of head and neck. From symphysis of inferior maxilla, genio-hyoidei, mylo-hyoidei dotted lines *k*, tightly pull upward hyoid bone *h*, hyo-epiglottic ligament *g*, and make erect epiglottis at *c*. Tongue rests on horizontal roof of mouth; is further retained within its cavity by velum palati *a*, stretched tightly behind dorsum by dotted lines, palato-pharyngei. Anterior enlargement of pharynx by dragging of sterno-thyroidei, dotted lines *d*, in conjunction with dotted lines genio and mylo-hyoidei *k*. Antero-posterior enlargement by extension of cervical vertebræ on themselves, greatest opposite glottis *e*. Course of airway shown by upper arrow at posterior nares; post-aural airway at middle arrow; to trachea at lower arrow. The thyroid cartilage, epiglottis, and hyoid bone are much further from the posterior wall of the pharynx, and nearer the surface, and the anterior posterior diameters greater than here represented.

If it be desired to excite the respiratory act by reflex irritation, I am quite unable to under-

stand why the cutaneous peripheral distribution of the nervous respiratory centres, nature's special provision, should be passed over, and a comparatively inaccessible and less sensitive part should be selected for that purpose.

Any other laryngeal obstructions than those mentioned which seems sometimes to be vaguely implied or hinted at does not, I think, exist, as in the insensitive state I find the arytenoid cartilages are always widely separated, the chink of the glottis completely open.

I have called this way a new way, then, because, with the how and the why in it, this procedure enables us for the first time imperatively to raise the epiglottis, and know that we raise it. I have allowed myself to call this way the only way, but not lightly. That it is nature's way is plainly seen in the frequently intense trismus, when apnoea threatens death—which in our ignorance we have deemed it imperative, by some means, or by any means however violent, to resist and overcome. Every day this (nature's way) is seen, too, in the position instinctively assumed by the croupous, the diphtheritic, the asthmatic, in the position taken just before extraordinary efforts by the opera singer, the wrestler, and, too, in that of the dying. That, except through the hyoid bone, any surface procedure for raising the epiglottis is impracticable, I am confident; that it is the only available way known to us, I feel sure; that any way could be more prompt is indisputable; that any way could be more simple, it would be hard to imagine. What I have endeavored to show may be summarized as follows:—

1. Contrary to general belief, traction of the tongue, however and whatever the force employed, does not and cannot raise the epiglottis as supposed, because: *a*. The tractile force supposed to be exercised upon the epiglottis is arrested chiefly by the frænum linguæ, and through the muscular fibres within it is expended upon the inferior maxilla, into the genial tubercles of which they are inserted. *b*. The surviving force is expended almost entirely upon, and intercepted by, the anterior pillars of the fauces. *c*. For any tractile force which might survive, a continuous and sufficient medium for its transmission to the epiglottis is wanting.

Proof.—The glosso-epiglottidean fossa being filled with water while the body is erect, traction upon the tongue, however forcible, does not spill it.

2. The only way by which the epiglottis can be certainly raised is by extension of the head and neck; by this means its elevation is instant and complete, because: *a*. By a three-linked chain, in which the hyo-epiglottic ligament is the lower link, the body of the hyoid bone the central link, and the combined genio and mylo-hyoidei muscles the upper link, the epiglottis is so connected to the body of the inferior maxilla that above a certain point, as the body of the lower jaw is moved upwards, the epiglottis instantly, irresistibly, and inevitably moves upwards exactly in unison till it is erect. The violent wrenching asunder of the clenched teeth,

in proportion as it depresses the body of the inferior maxilla, antagonises a distinct effort of Nature to maintain the elevation of the epiglottis.

8. By extension of the head and neck carried to the utmost, the remaining obstructions from the backward-fallen tongue, the velum palati, and uvula, are also simultaneously removed, and the entire pharynx is enlarged throughout. Because: *a.* The tongue, the dorsum of which before fell by gravitation upon the then horizontal posterior wall of the pharynx, falls upon the now horizontal arch of the palate. *b.* The velum palati, by means of the great tension of the palato-pharyngei muscles, is pulled away from the posterior wall of the pharynx, the entire membrane being stretched tightly forwards and downwards, behind part of the dorsum of the tongue helping to complete the shutting of the tongue out of the pharynx and into the mouth, and together with its dorsum, forming a partition—the anterior wall of a now postoral air-way, thus created and maintained. *c.* The pharynx, anteriorly, from the base of the tongue to the cricoid cartilage, is stretched strongly forwards by the extreme tension of the sternothyroidei muscles. While above, the extension of the head by the occipito-vertebral articulation about 60 degrees shifts far forwards the anterior wall of the naso-pharynx, posteriorly, by the extension of the cervical vertebrae upon each other, in all about 30 degrees, the entire part of the pharyngeal wall is shifted backwards, this being observable in the greatest degree, opposite, and just above, the now widely open glottis. Thus, as I have previously said, the upper air-way, which before was an angular, flaccid canal, barely permeable, is now an enlarged but slightly curved tube, free throughout from the glottis, which in this position is above, to the nares below. It may be mentioned, too, that for tracheotomy this position makes the skin tense, and the parts beneath accessible and firm. For operations upon the naso-pharynx such as the removal of adenoid growths, the space concerned is greatly enlarged, and in all cases blood or other matters are thus precluded from draining into the trachea.

I have been asked, only this afternoon, to answer to-night a question, and if you will excuse an unintended digression, I will do so now. The question is this. If the pulling forward the tongue, as always practised, does not always raise the epiglottis, how do you account for the relief it always and unquestionably affords, the very evidence of which is in the continuance of its universal practice? I answer, the relief alleged I admit in some cases, but in some cases only, and then, it is not by raising the epiglottis. In commencing irregularity of breathing the cause of obstruction is sometimes chiefly one thing, sometimes it is chiefly another. When, as often happens, the chief cause is a backward-fallen tongue, if the tongue be pulled forward, that cause is removed, but mark, nothing more is done, except that by the usual depression of the body of the lower jaw in the doing of it,

any tendency to a falling of the epiglottis has been already favored.

And now in turn let me make one remark, and ask also one question. Unfortunately, it is not true that pulling forward the tongue does afford relief always; on the contrary, there are occasional cases in which it does no good at all, and it is these occasional cases which not exclusively, but chiefly, concern me.

For example, out of over thirteen thousand cases of death from asphyxia, which during the past three years occurred in England alone, I have selected over one hundred, unequivocally attributed to the administration of anæsthetics—cases which, beyond reasonable doubt, received the most skilful treatment, and in which the tongue was conscientiously pulled forward in the recognized way—but they died. Of what did these unfortunate persons die?

I commenced this paper with the axiom, with which you all undoubtedly agree, that “in the insensitive state, or complete apnoea, the epiglottis falls backwards and closes the glottis.” “That in this condition the elevation of the epiglottis is the first thing in order and in importance, as without this, respiration, whether natural or artificial, is impracticable, and the result fatal.”

The question I have asked I should be sorry even to pretend to answer. How many of these deaths may have been due to alleged “constitutional peculiarity,” or the always convenient, and indisputable “heart-failure,” I cannot judge.

From all the facts which I have now presented, however, I am unable to avoid the belief that, in every instance, the epiglottis was not raised, but continued unlifted till death was complete. The perplexing, painful obscurity enshrouding many of these deaths, may, I think, hereby be somewhat lightened, and a certain proportion of them at least be fairly and intelligently accounted for.

It is a happy feature that instruments—the delays in getting them and in using them, the occasional violence and the wounding with them, yet the utter helplessness without them—are, in the procedure recommended, so entirely superseded.

These facts emphasize the still further observance of the well-known fact that the nose, not the mouth, is to be used for breathing. Before administration of anæsthetics, not the heart only, but the upper air-passage should be carefully examined. From the commencement and throughout inhalation the head should be as low as is consistent with convenience, and so arranged that no obstacles exist to instant complete extension, should it seem expedient. With these precepts observed, stertor will be an unusual occurrence, and always under control. As far as it goes, this applies also to ordinary sleep, in which the habitual snoring of some persons may be largely avoided simply by the use of a sufficiently low pillow.

From long habit, to most operators, the inaccessibility of the tongue will be a cause of disquietude. To such I commend an actual

inspection of its disposition as I have described it on the fresh cadaver, and as regards any obstruction from it, they will be at rest.

The order to be observed in the treatment of suspected apnoea is—1, to secure a complete free airway; 2, to induce the respiratory act by reflex action; 3, artificial respiration. Heretofore, with an unsuspected but closed airways, incomplete respiratory effort with slight heaving has sometimes been induced, but no breathing. Artificial respiratory motions have been practised, but often without respiration or exchange of air; hence have resulted inexplicable deaths.

The most important facts I have submitted are:—

1. That, contrary to universal belief, traction of the tongue cannot raise the epiglottis.

2. By sufficient extension of the head and neck, whether by volition, instinct, reflex action, or by the effort of another, whether in the healthy, the dying, or the dead, the epiglottis is instantly, and beyond prevention, made completely erect.

3. By complete extension of the head and neck the tongue and velum are, as respiratory obstructions, simultaneously with the epiglottis, removed; and without a moment's delay the entire airway can be straightened, enlarged, and be made free throughout by the nearest person.

4. If syncope happens to be the chief factor, or only incidental, this also gets thus the quickest and best corrective.

The author expresses the hope, as he has the confident belief, that the facts above submitted will be found to be permanent additions to our means of averting death.—*The British Medical Journal*, Nov. 17, 1888.

ANALYTICAL RECORD

OF CURRENT LITERATURE RELATING TO THE
NOSE, THROAT AND LUNGS.

EXAMINATION OF THE THROAT AND NOSE OF TWO THOUSAND CHILDREN TO DETERMINE THE FREQUENCY OF CERTAIN ABNORMAL CONDITIONS.

W. FRANKLIN CHAPPELL, M. D.,
M. R. C. S. ENG., of New York.

After the reading of a paper by Dr. Franklin Hooper, of Boston, before the Laryngological Section of the New York Academy of Medicine, on adenoid growths in the vault of the pharynx, and at the discussion which followed, a great diversity of opinion prevailed as to the frequency of this disease in children; some thinking that as many as two or three per cent. were sufferers; according to their experience, it was less than one per cent. One believed it to be a rare disease.

Dr. Chappell, in order to settle this point, associated himself with Dr. Andrew H. Smith, and made these examinations; also, while making

these, an opportunity of studying the condition of other parts presented themselves. These 2,000 children used for these purposes, were taken from different institutions. In the entire number the following abnormal conditions were found:

| | |
|--|-----|
| Adenoid growths..... | 60 |
| Enlarged tonsils..... | 270 |
| Deviated septa..... | 330 |
| Spurs on septa..... | 150 |
| Hypertrophy of inferior turbinated bodies..... | 900 |
| Hypertrophy of middle turbinated bodies..... | 161 |

This shows that 1,281 were suffering from some anatomical abnormality, and usually with its accompanying symptoms of respiratory obstruction and catarrh. The author showed that 60 were the entire number that suffered from adenoid growths 1292 were boys; 49 of whom had adenoid growths; 708 were girls, 11 having the disease, scarcely more than half in proportion to the number occurring in the boys. The ages varied from four to sixteen; few cases occurring under six years or over fourteen; the largest number being in children between eight and ten years, the frequency increasing toward puberty and decreasing after it. Condition of life and surroundings seem to have no effect on the occurrence of this disease.

Those children which were taken from better classes suffered equally with those taken from asylums. Two classes of cases were observed, sufficiently different in appearance and symptoms, to allow of separate description.

He describes these two classes: In the first class the growths were irregular red mass, varying in size from that of a pea to that of a small cherry, and having a tense glistening appearance. They occupied chiefly the vault of the pharynx, and resembled the glandular tissue of this region, much hypertrophied. Thirty-five cases of this kind were observed. The growths were numerous, and hung down from the vault so as to fill the post-nasal space. They secreted a copious, thick yellow mucus, which hung from and around the growths, and in some cases large desiccated scabs covered the masses. The vocal sounds were thick and dead in character, and the nasal respiration much impaired at times, while at other times it seemed comparatively free. None had the high palatine arch and pigeon-breast described by some observers. There was no case of decided deafness, although 10 had slight impairment of hearing. All these children would be classed as of scrofulous type, and, he thinks this disease is largely due to diphtheria, scarlet fever, and measles, occurring in such children, whose mucous membranes and glands, if once inflamed, show very little recuperative power. Throat complications are more severe in this class when suffering from diphtheria and scarlet fever; in place of returning to its natural condition, the mucous membrane remains swollen and inflamed, and after a short time that which was only the result of acute inflammation becomes organized tissue. This form, though differing anatomically from the other class of post-nasal growths, the same treatment is indicated,

In the second class the growths were small, pale pink or gray in color, and, in some cases, presented a fringed appearance; while, in others they were flat and round, and occurred singly or in clusters. 25 of this class were observed: 19 of which had only a moderate amount of the growth, confined chiefly to the vault and around the eustachian tube. The remaining 6 were marked cases of the worst type of this disease. The growths were numerous, sensile, and long, and completely packed the post-nasal space, and extended in a chain-like formation down on the sides of the pharynx, and seemed continuous with the tonsils. In 6 cases the tonsils were hypertrophied. In 1 case not quite so severe as the others, the growths occupied the posterior margin of the septum and the margins of the posterior nares. All of these children had complete nasal obstruction, the "dead" voice, high palatine arch, small nostrils, and pigeon-breast, and also the restless, irritable condition described by all writers on this subject. The 19 who were affected only in a moderate degree presented only moderate symptoms, and only 2 had impairment of hearing. All of the 6 severe cases had impaired hearing. One child could hear only the loudest sounds. The mucus secreted in these cases was white and frothy in character, and very copious. This class of disease is often hereditary and occurs in more than one in the same family.

In regard to the method of examining the post-nasal space, this was done by the mirror. He remarks that the effect of discipline in the public institutions have a remarkable effect on the reflexes and by that he was able to carry out these examinations of the post-nasal space with much ease. This condition seemed to paralyze the facial muscles and the soft palate was observed to hang away from the posterior pharyngeal wall. This he says is a marked contrast to the condition in which the physician finds it in private practice. 20 of the children had to be examined with the finger, &c. A good light is of the greatest importance.

The hypertrophy of the anterior part of the inferior turbinated bodies was confined chiefly to the mucous membrane. And the most marked cases were noted, 260. In 102 the hypertrophy was bilateral and pressed the septum on both sides; in 140 it was unilateral, occurring chiefly on the left side, very large, often occluding the nostrils and pressing the septum to the opposite side; in 18 cases the hypertrophy of the inferior and middle turbinated bones was so great as to occlude completely the nares, and an anterior rhinoscopic examination gave the appearance of two red masses filling the nasal cavities. Attention is called to the fact that if one should be made to rely only on the symptoms, without a rhinoscopic examination, they would be pronounced the worst type of adenoid disease. Hypertrophy of the inferior turbinated bodies occurs with equal frequency in males and females, rare in very young children. Colored children and Italians are remarkably free from it.

Hypertrophy of middle turbinated bodies: 161 had this condition; in 51 it was bilateral, and 110 unilateral. In 2 cases the mucous membrane and bone were so much enlarged that the tumor touched the floor of the nares. The bilateral cases presented chiefly an hypertrophy of the mucous membrane, but in the unilateral there was mostly a bony hypertrophy, and in 75 of these cases the cartilaginous septum was deviated to the opposite side; its concavity corresponding to the hypertrophied middle turbinated body. No child presented any evidence of reflex symptoms, and those cases of hay-fever, reflex headache, and cough, which are relieved and sometimes cured by cauterization, or by removing part of the middle turbinated body, must be due to some condition of later development, as certainly, if hypertrophy or pressure alone could cause the reflex disease, he says we ought to have had them with great frequency in these cases.

Deviated septum: 880 examples occurred; 270 presenting deviations of the cartilaginous, 50 of the bony septum, 10 of both bone and cartilage. Of the cartilaginous deviations, 148 were to the right, and 122 to the left. Of the bony, 85 to the right, and 15 to the left. The bone and cartilage deviations were S-shaped. The cases of deviation were 50 per cent. more numerous in boys than in girls; 25 per cent. gave a history of injury, and the same number were due to hypertrophy of the middle turbinated bone. Only 10 deviations of the cartilage were observed in children under the age of seven, and they gave history of injury. In deviation of the bone, the children were all over eight. In 80 per cent. the obstruction was sufficient to impede respiration; and in all cases it increased the nasal discharge.

From these observations it seems that deviation of the cartilage is rare under seven, and that when occurring it is due to traumatic causes. A well established fact is that deviations of the septum occur in about 75 per cent. of adults examined, and this, of course, must be due to some cause which does not affect the very young.

He thinks that a large percentage is due to one of the four causes: 1st. Traumatism. 2d. Hypertrophy of middle turbinated body, or some other source of unilateral pressure. 3d. Hyperphasia from long-continued irritation. 4th. Difference in period of development of the bones of the face and septum.

Spur on the septum: 150 were observed; 190 on the right and 50 on the left. A part of the septum visible through the anterior nares is only considered here.

In conclusion of his paper he recommends those who having oversight of children, should have them examined before the age of six and fourteen years in order to ascertain the conditions. The largest number situated at the anterior inferior angle of the cartilage, close to the floor of the nares, and varied from one-quarter of an inch to an inch in length, were shelf-like in appearance, and concave on the under surface.

95 of the older children had a long ridge starting from the anterior inferior angle of the septum and running upward and backward from one to one and one-half inches. They were very large, often occluded the nasal passage of that side, and caused frequent attack of epistaxis. He thinks that spurs on the septums are often caused by slight injury to the nose, and, although small at first, grow rapidly.

Of enlarged tonsils those presenting very considerable enlargement were noted. Of these, there were 270; 188 being of both tonsils, and 87 of one only; 160 were in males, and 110 in females. 7 cases were of extreme enlargement, preventing a view of the posterior wall of the pharynx and causing difficulty in introducing the finger into the post-nasal space. 6 cases had great impairment of hearing, and all breathed with the mouth open, to a greater or less extent, and had other symptoms of obstruction.—*American Journal Medical Sciences, Feb., 1889.*

— o —

ANATOMY OF THE NASAL CHAMBERS.

HARRISON ALLEN, M. D., Philadelphia.

A very valuable anatomical essay upon the nasal chambers was read by the above author before the American Laryngological Association and published in the *New York Medical Journal*, February 2d, 1889. He began with the consideration of the anterior portion of the middle turbinated bone, and then the associated parts, the shape of the posterior part of the same, the difference in diameter of the chambers, and the boundaries of the naso-pharynx directly back of the chambers. The following are some of the abstracts from his essay:

"The middle turbinal, when examined by anterior rhinoscopy, presents a stout anterior border which extends vertically, and an inferior border seen foreshortened, extending horizontally for a variable distance.

"The vertical border varies both in position and shape. It may, as a rule, lie in the plane of the posterior border of the ascending process of the maxilla, or be advanced well into the external nose so as to be placed between the process last named and the septum. The border is, in the majority of instances, thin and compressed, and retains a diameter not over 2 or 3mm., but it may be much wider, and attain in rare instances estimated diameters of 6 to 10mm. Examination of the ethmoid bone in the skeleton shows the increase of width to be due to the inflation of the bone by two or more interspaces occurring between the vertical walls. The anterior portion of the middle turbinated bone may be said to be separated from the posterior portion at a vertical plane which passes through the anterior ethmoidal foramen and the line of the suture between the molar and the sphenoid bones. The part of the nasal chamber which lies between this plane and the ascending process of the maxilla is wider than elsewhere. It is bounded laterally by the uncinat process

"of the ethmoid bone and the lacrymal bone, inferiorly by the suture between the horizontal plates of the maxilla and the palatal bones, anteriorly by the plane of the posterior borders of the ascending process of the maxilla, and posteriorly by the plane of the anterior ethmoidal foramen. Hanging directly within this space is the anterior portion of the middle turbinated bone.

"The following structures lying within the anterior part of the nasal chamber may become inflated—viz.: the anterior portion of the middle turbinal, the anterior ethmoid cells, and the points of junction of the middle and superior turbinal with the ethmoid bone proper. No inflated part occurs in the posterior portion. The anterior portion is never scrolled.

"The inferior free border of the anterior portion of the middle turbinated bone may be abruptly bent, and be free from surrounding parts or be pressed against them. The anterior portion is distinguished clinically from the posterior by the disposition shown for the bone to be covered with spicules or the whole region to be hyperostosed. The membrane is often abnormally thickened at this place alone. The bone, when denuded of its membrane, is found to be separated from the rest of the turbinal by a groove.

"The septum being in no instance perfectly straight, but presenting wavy surfaces (even when not grossly deviating from a vertical plane), it is possible for the inflated anterior portion of the middle turbinated bone to be concealed at the sides while freely exposed in front."

He says that number of instances have been seen in which the anterior border was not inflected, but of wafer like thickness, yet the bone was found to be greatly inflated a short distance back. The importance of this knowledge in making clinical examinations is so evident as to call for no comment.

"The anterior ethmoid cells often form a distinct structure, A rounded mass which resembles the larger end of a distended pea-pod may be seen occasionally projecting into the nasal chamber at the widened anterior part. It usually lies back of the uncinat process, which may be widened and placed nearly transverse to the chamber, and thus be held between it and the nasal septum, or projects more directly forward than in the instance given, when it occupies the space between the uncinat process and the lacrymal bone, and can be seen only after this bone has been removed. The entire anterior portion of the ethmoid mass may be distended, but without a distinctly projecting mass being formed."

The author has seen cases where intense pain of an inflammatory type was located directly over this anterior inflated part of the ethmoid bone, which was relieved by drilling into the parts from in front.

"The inflated parts at the places of junction of the turbinals with the main portion of the

"ethmoid are never of large proportions, but "may exert injurious pressure against the septum, especially in the instance of superior turbinal."

He says that a question may here be answered as to the connection between the forms of the middle turbinated bone and disease of the bone and its membranes. He found, both in children and adults suffering from atrophic catarrh, a simple and compressed anterior portion.

The lower free border anteriorly may be also inflated. An S-shape anterior portion has been observed in adults only. The inflated form is, however, absent in all ages. In chronic nasal catarrh he met with all the above varieties.

"The hinder part of the middle turbinal as "seen by posterior rhinoscopy either entirely "occupies the upper part of the choana or inclines obliquely downward and inward. In the "latter instance, a space is formed through "which a small portion of the anterior of the "chamber can be seen. The superior turbinal "is less commonly seen in the choana than is "shown in the figures of the clinical text-books. "I have commonly found the right middle turbinal less inclined than the left, and it may be "horizontal at the upper part, a condition very "rarely seen on the left side. The left turbinal "is often nearly vertical and held in a narrowed "choana. A deflected septum will be apt to "compress the middle turbinal on the side toward which the septum inclines. But apart "from this condition, the left middle turbinal "may incline posteriorly to the vertical line.

"In posterior rhinoscopy the parts are seen "as they lie in various relations to the plane of "the posterior nares, as this opening is defined "in the skull. Observers commonly speak of "the image as though it were framed in this "plane. In truth, what is seen is a foreshortened view of the posterior portion of the nasal "chamber seen through the nares. If care be "not taken, a septal deviation which is within "the chamber may be confounded with a "thickening of the septum at the plane of the "nares. In studying the skull, of course, this "difficulty disappears. If a careful inspection "satisfies the observers of the living subject that "an irregular or triangular swelling exists on "the septal side of the smaller of the two images "of the nares, and that this swelling is associated with a middle turbinated bone which inclines to the vertical, a diagnosis of posterior "deviation of the septum may be normal as "seen from in front.

That the two chambers may vary in size without deviation of the nasal septum was shown by him in a skull exhibited before the Association in 1888. Since that time he has seen a number of crania which yield a similar appearance, and it would not be necessary to recall the observation if a statement had not been made by Dr. Morell Mackenzie to the effect, that he had examined 3,102 skulls in the collections of London, and not found a single example of such asymmetry. He was led by this statement to go over the ground.

Dr. Allen has examined a large collection of skulls amounting to 1,750, including many nationalities, and found 18 examples of left choanal asymmetry. Of this number, only two showed septal deviation, and 8 only presented angularity of the left contour-line of the septum. In all the above the left choana was distinctly smaller than the right and the general disposition was the same throughout the left nasal chamber.

A few skulls which were examined and taken from ancient graves (these were symmetrical) of contrasts in measurements of the choana is much greater than in the skulls of other races, and that within the group thus limited, deflection of the septum is of common occurrence.

"It would appear that the best guide to "nasal asymmetry as seen in crania is a comparison between the choanæ. The septum "may be straight, be inclined to the smaller "choana, or to the opposite side. The asymmetry appears to be determined by causes which "exist independently of the deviation of the septum—always assuming that the posterior free "border of the septum does not deviate from "the vertical."

He states that the study of crania is not the best standard for clinical study. From his experience, the asymmetry of the choanæ in many instances is vastly greater than can be gleaned from ethnological cabinets. The diameters of the left choana is the smaller, as a rule. Even when the contrast is slight, the left middle turbinal is commonly more vertically inclined than is the right.

In giving the boundaries of the naso-pharynx directly back of the choanæ he says, the choanæ receive the turgescent ends of the turbinals when they can be no longer contained within the chambers. Above, the space is defined by the alæ of the vomer; below, by the velum in advance of the salpingo-palatine folds, and at the sides by the internal pterygoid plates and the orifices of the eustachian tubes. As opposed to the vestibule which lies in advance of the true nasal chamber, the above space may logically constitute the *posterula*, if it be found convenient to employ a distinctive term.

A specimen of a human head was injected which shows that, in a normal condition of the membranes, the mucosa and sub-mucosa became infiltrated and distended in such wise as to cause projections of the lower and middle turbinals into the naso-pharynx. Several cuts illustrated his essay—and also a table of measurements of the asymmetrical nares. The measurements in this specimen are as follows: Inferior turbinal beyond the end of horizontal plane of palatal bone, 5mm.; middle turbinal beyond the end of horizontal plane of palatal bone, 7mm.; from the end of vomerine alæ to the plane of the choanæ, 15mm.

He concludes by saying that during life the presence of the posterior ends of the turbinals in the naso-pharynx is not unphysiological. He has frequently observed that perfect comfort is compatible with the existence of such masses.

If, however, nasal breathing is arrested, if the turbinals are pressed against each other in the same chamber, if the eustachian tubes are pressed upon, if the salpingo-palatal folds are impinged—and it must be said that one or more of the above conditions are apt to be present, the reduction of the swellings is demanded.

— 0 —

OBSCURE CASE OF LARYNGEAL STENOSIS: TRACHEOTOMY.

FREDERIC BATEMAN, M. D., F. R. C. P.

In a clinical paper read before the East Anglian Branch of the British Medical Association at Eye, a case of laryngeal disease was described, the symptoms of which not only present the same amount of obscurity as those of the Emperor, but they marched as it were *pari passu* with those of the unfortunate monarch. The author draws a comparison as regards to the operative measures and the presenting obscure symptoms of the Emperor and his own case. He made this case to form the subject of a brief communication to this meeting, not so much from anything very striking in the clinical history of the case *per se*, but because it presented many features of special interest in connection with the differential diagnosis of laryngeal disease. An abstract of the history of this case is here given, which is as follows:

"On Jan. 28th, 1888, M. B., admitted to Norfolk and Norwich Hospital, cachectic-looking, 21 years of age, emaciated, an imperfect account of herself could only be got. Married 8 months. From careful inquiry into her antecedent history no hereditary predisposition to phthisis could be traced. Ordinary sore throat complained of on admission. She was hoarse for two months previous; general congestion of the fauces and pharynx. Two weeks from date, stridulous breathing was observed, and a laryngoscopic examination disclosed a swelling of the aryteno-epiglottidean folds overhanging the vocal cords, no marked dysphagia. Treatment consisted of iodide of potassium, etc. At this stage it became a question whether the laryngeal condition was tuberculous or of a syphilitic nature. Though her condition seemed reconcilable with either hypothesis. No evidence of primary venereal disease could be found or hereditary taint. No improvement ensued from the treatment. On Feb. 8d, the stridulous breathing has greatly increased, there was no cough, with little expectoration, purely mucous in character, there was recession of the intercostal spaces, and very little air entered the lungs; slight amount of dullness under left clavicle. Pulse, 144; respiration, 40; temperature, 102°. Dyspnoea became so urgent that tracheotomy was performed March 6th with some difficulty. Durhan's lobster cannula was inserted. Next day, the report states that she had a good night; breathes easy, face placid, pulse 120, respiration 28, now thoracic. The air entering the lungs, no dullness under the clavicle and no recession of intercostal

spaces. March 12th, laryngoscopic examination showed larynx and tonsils swollen, larynx specially. The epiglottis red, a little depressed, rendering the view of the glottis difficult; mucous membrane over the right aryteno-epiglottidian fold swollen; throat tender. Suffice it to say that from the time of the operation she continued to improve and rapidly gained flesh, and now is well, but still obliged to wear a cannula.

It has been suggested to Dr. Bateman during the consultation, that there may be a possibility of some venereal taint. To end that doubt, an antisiphilitic treatment was kept up but without any beneficial effect, but rather the converse. Under cod liver oil and local treatment, the latter consisting of the direct application of nitrate of silver to the larynx, 80 gr. to one ounce, and once a direct application through the tracheal cannula, no inconvenience following.

He remarks that in all cases of tracheotomy the particular kind of cannula becomes a matter of primary importance. Five different tubes were tried and used during the wearing.

In summing up his case he says that one or two points for consideration arise in connection with this case, in reference to diagnosis. Previous to the operation difference of opinion existed to the pathology of the case, and the subsequent history of the patient has not furnished the elements of an unassailable diagnosis. Some colleagues inclined to syphilitic, others to a tubercular origin. The evidence from the symptoms observed was principally of a negative character and the history of the Emperor shows that even with the improved methods of investigation, present knowledge of laryngeal disease, whether of a benign or of a malignant character, is by no means as perfect as could be wished. At the end of his paper he compares the differential diagnostic points. The patient is alive and no change for the worse has taken place. —*The British Medical Journal*, Feb. 16th, 1889.

— 0 —

SOME PRACTICAL HINTS IN CONNECTION WITH INTUBATION OF THE LARYNX.

DR. J. MOUNT BLEYER, of New York.

The *New York Medical Journal* prints in its columns a paper which gives a *resumé* of 206 cases which the author operated from 1886 to 1888. According to his and other statistics published up to the present time, he finds that the method compares more than favorable with tracheotomy, as regards the saving of life, and to consider it from an æsthetic point of view it is much to be preferred. He calls special attention to the importance of laryngeal examinations, which he performs in all cases before intubating. The importance of such procedure is neither to be underrated nor neglected. Dr. Bleyer says by such means he can see the position which membranes occupy and the general conditions present, and if membranes are in the way of the operating field they can then be

removed, instead of pushing them before the tube into the trachea. He says that forcing membranes before the tube is the rule and not the exception.

His method of forced laryngoscopy is thoroughly described, which is performed by means of his tongue tractor, a mouth-gauge and mirror. In 50 cases he extracted the tube daily. His reason for so doing were for purpose of removing the accumulation of loose membranes, tenacious mucus, pus, &c. After the extraction of the tube patients were sometimes much easier. Food was given one-half hour after removal, either by the mouth or stomach-tube, and irrigation of the entire air-passage was practised. The solution used was an alkaline one. Reintroduction of the tube was then only immediately inserted where the stenosis was urgent, otherwise not reintroduced for a number of hours. It was often unnecessary to replace the tube after the second or third day. The differential diagnosis is described between the tube being in the larynx or œsophagus. In case any doubt exist before the final removal of the thread from the tube, the finger should be passed down upon the head of the tube and search for the anatomical surroundings. But the most certain is to examine by means of the laryngoscope and tractor which is certain to relieve the operator of all anxiety. The thread is removed by passing the index finger upon the head of the tube and slight counter-pressure upon it, while the other hand draws gently on one end of the thread. The selection of the tubes depends more upon the judgment of the operator than upon the age of the child, as the size of the larynx differs very often at the same age. He warns those practising intubation to carry a double set of tubes, and some with a large humen. Feeding is done in the recumbent position through the nursing bottle. If bad swallowing exists, only such fluids as shaved ice, water, or ice-cream. Semi-solid food should be mostly given by the stomach tube after the removal of the tube, in order to prevent irritating substances from entering the bronchi through the tube. A description of a suitable bed is given and the use of steam atomizers. The eyes of the intubator should be protected by glasses during all examinations. The cleansing of instruments should be done by boiling at 212° F, &c. Irrigation, he continues, is an admirable method of washing away the products of the local lesion, he made use of a No. 8 soft catheter which is attached to a fountain syringe; the catheter is passed into the nostrils, and thus thoroughly irrigated: next he washes out the mouth pharynx and larynx. The solutions for that purpose is Charles Marchand's Peroxide of Hydrogen, 15 volumes chemically pure, one ounce to twelve ounces of water. The position of the child during these manœuvres are simple. The mouth is either opened by a gag or not, according to circumstances, and held well forward over a basin. He recommends peroxide of hydrogen to any other antiseptic on account of its non-poisonous properties and powerful destructive action upon the membranes,

&c. The following table is his record and *résumé* of 206 cases.

Total number of cases operated on, 206
Male, 137. Female, 69.
Recoveries, 67 (33 per cent.) Deaths, 139.

In the case of recovery, the tube was:

Removed on the 1st day in 3 cases.

| | | | | | | |
|---|---|---|------|---|----|---|
| " | " | " | 2d | " | 13 | " |
| " | " | " | 3d | " | 10 | " |
| " | " | " | 3½ | " | 6 | " |
| " | " | " | 4th | " | 12 | " |
| " | " | " | 5th | " | 11 | " |
| " | " | " | 6th | " | 3 | " |
| " | " | " | 7th | " | 4 | " |
| " | " | " | 9th | " | 2 | " |
| " | " | " | 10th | " | 1 | " |
| " | " | " | 15th | " | 1 | " |
| " | " | " | 20th | " | 1 | " |

UNDER THREE YEARS OF AGE.

| Age. | No. | Deaths. | Recoveries. |
|--------------------|-----|---------|-------------|
| 6 months | 1 | 1 | .. |
| 9 " | 2 | 2 | .. |
| 9 " | 3 | 1 | 2 |
| 10 " | 1 | .. | 1 |
| 10 " | 1 | 1 | .. |
| 1 years | 9 | 9 | .. |
| 1½ " | 4 | 3 | 1 |
| 1½ " | 1 | .. | 1 |
| 1½ " | 11 | 11 | .. |
| 1½ " | 2 | .. | 2 |
| 1½ " | 13 | 13 | .. |
| 1½ " | 5 | .. | 5 |
| 2 years | 21 | 21 | .. |
| 2½ " | 8 | 8 | .. |
| 2½ " | 1 | .. | 1 |
| 2½ " | 10 | 10 | .. |
| 2½ " | 7 | .. | 7 |
| 2 years, 10 months | 1 | 1 | .. |
| 2½ " | 2 | 2 | .. |
| 2½ " | 4 | .. | 4 |
| Total | 107 | 88 | 24 |

OVER THREE YEARS OF AGE.

| Age. | No. | Deaths. | Recoveries. |
|---------|-----|---------|-------------|
| 3 years | 17 | 17 | .. |
| 3 " | 7 | .. | 7 |
| 3½ " | 1 | 1 | .. |
| 3½ " | 9 | 9 | .. |
| 3½ " | 4 | .. | 4 |
| 3½ " | 3 | 3 | 3 |
| 3½ " | 9 | 9 | .. |
| 4 " | 6 | .. | 6 |
| 4½ " | 3 | 3 | .. |
| 4½ " | 8 | .. | 8 |
| 5 " | 4 | 4 | .. |
| 5 " | 3 | .. | 3 |
| 6 " | 5 | 5 | .. |
| 6 " | 3 | .. | 3 |
| 7 " | 3 | 3 | .. |
| 7 " | 5 | .. | 5 |
| 8 " | 3 | .. | 3 |
| 9 " | 2 | 2 | .. |
| 11 " | 1 | .. | 1 |
| 16 " | 1 | .. | 1 |
| 18 " | 1 | .. | 1 |
| 21 " | 1 | .. | 1 |
| Total | 99 | 56 | 43 |

Out of 107 there were 24 recoveries in children under three years of age, and in 99 three years and over there were 43 recoveries.

CAUSES OF DEATH IN 140 CASES.

| | |
|--|----|
| Sepsis | 11 |
| Broncho-pneumonia | 14 |
| Heart failure | 6 |
| Pneumonia | 27 |
| Extension membranes to bronchi, or diphtheritic bronchitis | 11 |
| Bronchitis | 1 |
| Double pneumonia | 1 |
| Asphyxia—not being notified, and the tube lost in the bed mattress | 1 |
| Exhaustion | 10 |
| Scarlatina | 1 |
| Nephritis | 2 |
| Membranous croup | 1 |
| Hæmorrhage of the nose | 1 |
| Asphyxia due to closure of the tube by membrane | 1 |

ENLARGED TONSILS—WHAT SHALL WE DO WITH THEM?

DR. CHARLES M. SHIELDS, Richmond.

A paper by the above named, which was read before the *Medical Society of Virginia*, followed by a brief discussion on the necessity of removing hypertrophied tonsils. He answering the question in the negative.

"Can they be removed by the application of astringents, absorbents, or mild caustics, or the hypodermic injection of ergotin, iodine, etc.?" The speaker presented the comparative merits of the amygdalotome and galvano-cautery, stating that he now only used the amygdalotome in young children, or where the tonsils were of the soft variety, where there was no danger of hæmorrhage, on account of the prompt contraction of the blood-vessels. He had never seen or heard of fatal hæmorrhage following the amputation of the tonsils in children, for the same reason. In adults, where the tonsils were of the hard, fibrous variety, although dangerous hæmorrhage only occurred about once in 500 cases, he thought that risk sufficient to make us discard the instrument if a safer and just as efficient method was at hand. The galvano-cautery fulfilled these indications. From four to eight sittings were sufficient to melt down large tonsils, and he touched six or seven points at one sitting. If a ten per cent. solution of cocaine was first applied, patient did not complain of pain. He had observed no tendency to recurrence after removal by this method. He summed up as follows: In all cases except in young children, or where the tonsils were very soft, the galvano-cautery method was to be preferred, because, 1st, the tonsils could be more nearly restored to their normal proportions; 2d, irregularly shaped masses could be removed; 3d, the effects seemed to be more permanent; 4th, it was devoid of danger.

— 0 —

SARCOMA OF THE TONSILS.

ALEXANDER W. MACCOY, M. D. of Philadelphia.

In a paper read before the American Laryngological Society, this author gives a clinical description of a case of primary sarcoma of the tonsils. He says that it appears to be a rare disease, and verifies his statement by the fact that the literature on the subject is meagre according to the *Index Medicus*. This applies to past observation. The current literature being now particularly rich, and a far greater proportion of cases being put on record. This is due to the greater zeal manifested throughout the world in the study of laryngology, together with more exact methods of study. His object in this paper was not so much to give a complete bibliography of the subject, though he appended the history of his own case, and an epitome of other recorded cases. The author's case is as follows:

Mary A. W., mulatto, age 45, native of

New Jersey, married, no family, came under care May, 1886. Family history: Father died of paralysis at 70 years; mother living in good health, age 70 years; maternal aunt died, advanced age, of tumor of the breast, said to be cancerous. An older sister died of malignant cancer at 50 years; other children are healthy. The history of the father's side was good. Her general health has been moderately good. May 15, 1886, she complained of a soreness on the right of her throat, deglutition somewhat painful. Examination revealed redness, and little swelling of the tonsils. The tonsils gave all the appearance of a tonsillitis of mild type. Three weeks after the tonsils were a trifle larger and showed cleavage through their substance, fetid odor was present, color having the appearance of an ordinary inflammatory condition, adjacent tissues appeared healthy. No lymphatic glands involved until very late in the progress of the case. Several weeks later local appearance were strikingly changed, no enlargement of the tonsils occurred, the color slightly changed, but the anterior palatine fold infiltrated thickened, shiny and grayish red, having a zone of deeper redness, as a limiting margin shading off quickly into sound tissue. The involvement embraced all of the ascending portion of the anterior palatine fold, the appearance of grayish redness resembled that of a gumma. In a few days, slow involvement of half of the arch and palate occurred, a small whitish spot appeared suddenly in the centre of the arch, which rapidly increased and soon a loss of tissue and threatening complete destruction of it. The process never completely destroyed the uvula, and at no time was there any involvement of the opposite side until late in the disease, then begun the encroachment; a stage of quiescence intervened. Her strength and spirits were unimpaired after this stage for some weeks. A rhinoscopic and laryngoscopic examination, showed an irregular red mass behind the posterior palatine fold. This mass grew rapidly, and spread out over the posterior pharyngeal wall, the lower portion began to interfere with the base of the tongue and somewhat with the epiglottis, rendering swallowing of fluids hazardous. Eight months after the growth right nasal respiration became difficult, and towards the end, impossible, also the base of the tongue, cheek jaws and gums showed implication. Then the glands began to swell to a large size, became indurated. Long before death deglutition became difficult and painful, then the patient showed signs of failing, and death occurred. No post-mortem was made. The treatment was non-surgical. Below the author gives his reasons for carrying out such a treatment.

1. The rarity of the case and want of a clear diagnosis.

2. The want of distinctive features while the tonsils alone were involved, having all the appearance of a tonsillar inflammation, and the absence of the patient during the critical period of the few weeks, when surgical interference would have been most effective.

8. A necessarily unsatisfactory report from the microscopist to whom I gave too small a portion of the growth for examination.

After the involvement of the lateral and posterior wall, several consultations were held, and the opinions being adverse to a radical operation, it was abandoned.

The treatment consisted of Donovan's solution, increasing to 14 drops, 8 times daily, local galvano-cautery, lactic acid, and finally for months application of a solution crystallized cocaine and crystallized carbolic acid 1 to 4, this appeared to retard and control the development better than any other remedy.

The duration of the case was one year.

In conclusion of his papers he cites other author's cases with his own case, this completes the list of primary sarcomas of the tonsils accessible to him which makes in all nineteen cases.—*Medical News, Feb. 2, 1889.*

— O —

EFFECT OF NASAL INFLAMMATION ON THE MIND.

THOMAS F. RUMBOLD, M. D.,
St. Louis, Mo.

In the last issue of the *Atlanta Medical and Surgical Journal* appears a short article under the above title. The author says that a normal condition of the mind depends upon a normal supply of blood to the normal brain. An abnormal supply of blood, even to the healthy brain, will produce an abnormal condition of the mental faculties. He noticed that patients who had suffered a severe attack of cold in his nasal passages, had his olfaction completely obliterated; and his mental powers more or less lowered in their capacity.

From the knowledge that the blood supply to the superior portion of the nasal passages is received alone from within the brain cavity, and the knowledge that the peripheral portions of these arteries must be affected injuriously by the inflammation at the same time, if not before the same central or brain portions are affected; in his case it was not difficult to account for the mental capacity that usually followed acute rhinitis. It follows that if an acute inflammation in the nasal passages was accompanied by mental manifestations, that mental incapacity of a more severe character must accompany chronic rhinitis. He is satisfied that his clinical observation justifies these remarks. The fact that the brain portions of these arteries take an abnormal condition at the same time, if not before the nasal portions do, indicates plainly that nasal inflammation and mind trouble must accompany each other. Ophthalmologists describe the condition of the brain, which observations have been made by means of the ophthalmoscope, Dr. Rumbold is certain that he can diagnose from a rhinal examination, long before the symptoms would suggest an ophthalmic examination. The treatment exist in the reduction of the rhinal inflammation.

— O —

DISEASES WITH PERSONAL NAMES.

In the last number of the *Union Médicale du Nord-Est* appears a very interesting article from the *Gazette Médicale de Strasbourg*, in which the author points out the inconveniences resulting from the use of personal names in the designation of diseases. He terminates his article with a list of these names. We, therefore, place below a list which pertains directly to the diseases of the respiratory organs:

Alibert's disease.—Fungoid mycosis.
Bosedows' disease.—Exophthalmic goitre.
Bozin's disease.—Buccol psoriasis.
Boyer's cyst.—Sub-hoiden cyst.
Cheyne-Stoke's respiration.—Uraemic resp.
Fauchard's disease.—Alveo-dental periostitis.
Grave's disease.—Exophthalmic goitre.
Hodgkin's disease.—Adenia, lymphadenoma.
Kopp's asthma.—Thymic asthma, spasm of the glottis.
Ludwig's angina.—Infections, sub. hyoiden phlegmon.
Millar's asthma.—Stridulous laryngitis.
Parry's disease.—Exophthalmic goitre.
Stork's blenorrhœa.—Blenorrhœa of the superior respiratory passages.
Thornwald's disease.—Inflammation of the pharyngeal gland of Luska.—*The Canada Lancet, March, 1889.*

— O —

HIGH ALTITUDES IN GRAVE'S DISEASE.

EDITORS OF "LANCET," London.

In the editorial columns of the *Lancet* of August 4th, 1888, is an annotation relating to the experience of Prof. Stiller, of Budapest, who, contrary to the opinion received, finds the residence at high altitudes of 1,500 feet to 5,000 feet beneficial in this disease.

— O —

ON THE PTYALISM CALLED "ESSENTIAL," A SYMPTOM OF ADENOIDE VEGETATION.

CANTOUX.

In the *Rev. Gén. de Clinique et de Thérap.*, December 18th, 1888, appears an article under the above title, in which the author says that ptyalism, which sometimes is grave in its consequences, can be traced to the presence of adenoid growths, and that after their removal ptyalism disappeared.

— O —

DISORDERS OF SPEECH IN THE INSANE.

FRANCIS LLOYD, of Northampton.

The *Lancet*, July 7th, 1888, published a paper under this title, which is only of psychological value.

— O —

ON THE DANGERS TO LIFE IN OPERATIONS FOR HAIR-LIP AND THE CAUSES OF THE HIGH MORTALITY.

J. TAUBERG, Fredrikshald, Norway.

Dr. Tauberg calls our attention that the causes of sudden death in small children operated on for hair-lip, is due to the sudden change of the mode of respiration, after the child has been accustomed to breath through a larger space. He says that children with complicated hair-lip should not be operated upon until several years old, and in uncomplicated cases, not until is the child several months old.—*Norsk Magazine, for Laegevidenskaben, Nov., 1888.*

— O —

NEW SIGNS OF GRAVE'S DISEASE.

Prof. CHARCOT, Paris.

The following is an abstract from the *Bulletin Médical*, February 8d, 1889:—"But a little time ago it was thought that the disease was manifested by the classical triad of symptoms—gottre, exophthalmos, and tachycardia; now we may diagnose the condition in the absence of gottre or exophthalmos. A new symptom remarked in a patient with Grave's disease, is elevation of temperature, which has been studied by Bertoye (see also Wolfenden, this Journal, Vol. II., p. 355). The urine does not, however, present febrile characters. Besides hyperthermia there is a sign which has not yet been signalized, namely, trembling. With the myograph 8 to 9 oscillations per second can be counted, whilst in paralysis agitans there are five or more, and seven in hydrargyrim. (This is a point which has been thoroughly worked out by Norris Wolfenden and Dawson Williams—vide "Notes on the Rhythm of Certain Tremors," *Brit. Med. Journal*, 1888). Thermophobia is also a sign of value; the patients are always too hot in bed, continually uncliothe themselves, and that without fever. Charcot draws attention to the feebleness of limbs, and the paraplegia which is met with as a symptom of Grave's disease."—*Journal Laryngology and Rhinology, March, 1889.*

BOOK NOTICES.

We have before us a copy of the latest Edition of *The American Armamentarium Chirurgicalum*, published by George Tiemann & Co., which is the finest illustrated catalogue of American instruments which has ever been printed by any instrument manufacturers in America or Europe, and deserves a place amongst any medical library as a reference book. This catalogue is prefaced, and an introduction to the history of surgery is added. It is also well indexed and the instruments placed under the names of the respective operations in which

they are made use of. That which will be found of the greatest aid to the profession in this volume, is the explanation of the use of the instruments and appliances, by the accompanying illustrations, with pertinent quotations from the writings of inventors and authors, as published in medical periodicals, recent works on surgery and from other sources. We must congratulate this house upon their successful publication, and there is no doubt that the profession will be glad to receive such a volume with open hands.

CONSUMPTION AND ITS CURE.—Dr. Louis Weigert, of Berlin, published by J. H. Vail & Co., New York. Price 15c. This pamphlet is a popular treatise, translated by the Rev. Robert Briscoe Earee, with illustrations and descriptions of the apparatus used in the treatment.

— O —

NOTES.—Germany has a new Laryngological Society under the name of "The Berlin Laryngological Society." Dr. Bernhardt Fraenkel is President elect.

Dr. J. Michael of Hamburg, and Dr. Holger Maygind of Copenhagen, have sent in their names as collaborators for the JOURNAL OF THE RESPIRATORY ORGANS.

INDEX

TO THE LATEST LITERATURE UPON THE DISEASES OF THE NOSE, THROAT, LUNGS AND COGNATE AFFECTIONS.

PNEUMATOTHERAPY.

ALTDORFER (M.) Heilfieber und das heisse Luft bad, ein Vergleich. Deutsche Med.—Ztg., Berl. 1888, ix, 908; 915.—PRYOR (J. H.). Results of treatment by the pneumatic cabinet. Med. Press West. N. York, Buffalo, 1888, iii, 459-466.

DISEASES OF THE RESPIRATORY SYSTEM.

Croup.

PERCEVAL (M.) Antipyrin in laryngismus stridulus. Lancet, Lond., 1888, ii, 961.

Diseases of the Pleura.

CONITZER (Lesser). Ueber die operative Behandlung der pleuritischen Exsudate im Kindesalter mit besonderer Berücksichtigung der eitrigen. Halle a. S., 1888, Schlesinger. 61 p. 8°.

HOLZBERG (Robert). Ueber plötzlichen Tod bei Pleuritis exsudativa. Halle a. S., 1888, C. A. Kaemmerer & Co. 86 p. 8°.

ANDRENELLI (V.) La compressione in un esudato pleuritico. Osservatore, Torino, 1888, xxxix, 516-519.—BROOKS (C. A.) A case of empyema. Atlanta M. & S. J., 1888-9, n. s., v, 527-530.—HERGUETA (S.) Tratamiento de las pleuresias con derrame. Bol. de med. y cirug., Madrid, 1888, vi, 265-276.—JEANTON. Pleurésies observées dans le service de M. le Prof. Dieulafoy, à l'hôpital Necker en 1887. Arch. gén. de méd., Par., 1888, ii, 532-549.—LATIS (M. R.) Lo spostamento degli essudati pleurici in rapporto ai movimenti respiratori

profondi. *Rassegna di sc. med.*, Modena, 1888, lii, 409-418.—LEAMING (J. R.) Interpleural pathological products; their cause, significance, and specific relationship to pulmonary phthisis. *Med. Rec.*, N. Y., 1888, xxxiv, 525-528.—MANTOVANI (G. I.) Cisti dermoide composta della pleura. *Riv. veneta di sc. med.*, Venezia, 1888, ix, 105-121, 1 pl.—MOLLER (J.) Zwei Fälle von Pyothorax nach der Curschmann'schen Methode und mit Creolinauswaschungen behandelt; Heilung. *Wien. med. Bl.*, 1888, xi, 1891; 1428.—PALOMBIERI (A.) La trasmissione della voce afona attraverso i versamenti endopleurici. *Riv. clin.*, Milano, 1888, xxvii, 248-266.—RUMMO (G.) Le pleuriti pulsanti; la pulsazione endopleurica ed esopleurica; nuovi segni dei versamenti pleurici abbondanti. *Riforma med.*, Roma, 1888, iv, 1804; 1810; 1816.—SATTERTHWAITE (T. E.) A contribution to the treatment of pyo-thorax and pyo-pneumo-thorax by the Seton method of through drainage, with some cases from personal experience bearing on the matter. *Med. Rec.*, N. Y., 1888, xxxiv, 581-585.—TROISIER. Sur un cas de pleurésie hémorrhagique primitive terminée par guérison. *Bull. et mém. Soc. méd. d. hôp. de Par.*, 1888, 3. s., v, 409-414. *Also: Gaz. hebdom. de méd.*, Par., 1888, 2. s., xxv, 680.

Phthisis.

DESPLANS (Denis). Du rôle de l'hérédité dans l'étiologie de la phthisie pulmonaire. *Lyon*, 1888. 160 p. 4°. No. 404. *

EVANS (George A.) Hand-book of historical and geographical phthisiology with special reference to the distribution of consumption in the United States. *N. Y.*, 1888, D. Appleton & Co. 295 p. 12°.

AUDIGÉ. Observation d'un cas de phthisie aiguë à forme suffocante chez une jeune fille de 17 ans. *Bull. et mém. Soc. de méd. prat. de Par.*, 1888, 698.—BERNABEI (C.) L'ipercacuana nell'emottisi tubercolari. *Riv. ital. di terap. ed ig.*, Piacenza, 1888, viii, 225; 275.—DE GIOVANNI (A.) Delle alterazioni del cuore nella tisi polmonale. *Boll. scient.*, Pavia, 1887, ix, 1; 83; 65; 97.—DESPLATS (H.) Du traitement de la phthisie pulmonaire par les inhalations d'acide fluorhydrique. *J. d. sc. méd. de Lille*, 1888, ii, 885-889.—DI MATTEI (E.) Sulla trasmissibilità della tubercolosi per mezzo del sudore dei tisici. *Arch. per le sc. med.*, Torino, 1888, xii, 298-307.—ELOY (C.) La phthisie diabétique et ses indications thérapeutiques. *Rev. gén. de clin. et de thérap.*, Par., 1888, ii, 638-635.—HART (B. F.) Reports on collective investigation of phthisis pulmonalis. *Tr. M. Ass.*, Missouri, St. Louis, 1888, 53-60.—KNIGHT (F. I.) Indications and contra-indications for altitude in the treatment of pulmonary tuberculosis. *Med. News*, Phila., 1888, liii, 582-584.—KRULL (E.) Die Heilung der Lungenschwindsucht durch Einathmungen feuchtwarmer Luft von bestimmter gleichbleibender Temperatur. *Berl. klin. Wchnschr.*, 1888, xxv, 787; 813.—LIEBERMEISTER (C.) Ueber Lungentuberculose. *Deutsche med. Wchnschr.*, Leipzig, 1888, xiv, 517; 544; 564; 597.—LOEWENTHAL (L.) Ueber Haemoptoe intermittens bei Phthisikern. *Centralbl. f. klin. Med.*, Leipzig, 1888, ix, 705-708.—MAYS (T. J.) Pulmonary consumption considered as a neurosis. *Therap. Gaz.*, Detroit, 1888, 3. s., iv, 748-756.—NYASTE (Den) ftsisterapien. *Eira*, Stockholm, 1888, xii, 405-414.—WILLIAMS (C. T.) On the results of the treatment of pulmonary consumption by residence at

high altitudes, as exemplified by an analysis of 141 cases. *Med.-Chir. Tr.*, Lond., 1888, lxxi, 297-380.

SURGERY OF THE CHEST AND ABDOMEN.

SEITZ (Adolf). Die Entwicklung der Lungenchirurgie und deren Fortschritte in dem letzten Decennium. [Wurtzburg.] Aschaffenburg, 1888, Schippner W & Cie. 49 p. 8°. *

ACKERMANN (G.) Watermelon-seed in the right bronchus; operation; recovery. *Med. News*, Phila., 1888, liii, 525.—BALLANCE (C. A.) A case in which the gladiolus was trephined for pus pent up in the anterior mediastinum. *Lancet*, Lond., 1888, ii, 857-859.—BÖCKEL (J.) Considérations sur une série de dix-sept cas de thoracotomie. *Gaz. méd. de Strasb.*, 1888, xlvii, 109; 121.—CARDARELLI. Sull' opportunità della pleurotomia. *Progresso med.*, Napoli, 1888, ii, 533-535.—MACKENZIE (K. A. J.) [The surgical treatment of empyema.] *Proc. Oregon M. Soc.*, Portland, 1888, xv, 41-50.—MICHEL. Pleurésie aiguë, thoracentèse; guérison. *Arch. méd. belges*, Brux., 1888, 3. s., xxxiv, 147-149.—OPENSOVSKI (F. M.) [Absence of lung; pneumotomy; recovery.] *Vrchn. St. Petersburg*, 1888, ix, 748.—ORTEGA (F.) Un caso de pio-pneumotorax tratado por la operación de Estlander. *Rev. méd. de México*, 1888, i, 138-140.—PASTEUR. A case of pulmonary gangrene treated by incision and drainage. *Lancet*, Lond., 1888, ii, 787. *Also: Med. Press & Circ.*, Lond., 1888, n. s., xvi, 888.—STEELE (D. A. K.) Surgical treatment of empyema in children. *J. Am. M. Ass.*, Chicago, 1888, xi, 688.

PHYSIOLOGY OF THE RESPIRATORY SYSTEM.

POPOFF (Ivan). [Effect of cold douches on pulmonary tissues in health.] *St. Petersburg*, 1888, R. Laferentz. 26 p. 15 tab. 8°.

BOHR (C.) Ueber den Gaswechsel durch die Lunge. *Centralbl. f. Physiol.*, Leipzig u. Wien, 1888-9, ii, 437-440.—DAYTON (W. A.) Convictions regarding the nostrils in respiration. *Med. Rec.*, N. Y., 1888, xxxiv, 698-700.—FUTH (J.) Ein durch die Athmung regulierter Apparat zur Athmung druckveränderter Luft. *Ztschr. f. klin. Med.*, Berl., 1888-9, xv, 248-247.

DIPHTHERIA.

VALOARCEL VARGAS (Lope). La difteria y su tratamiento. Obra laureada con el premio extraordinario en 31 de Marzo de 1888, por el Instituto médico valenciano. Barcelona, 1888, J. Seix. 388 p. 8°.

BARROIS. Deux cas de diphthérie soignés et guéris par les douches à la solution de phénate de soude selon la méthode décrite par le docteur L. Roulin. *Union méd.*, Par., 1888, 3. s., xvi, 565.—VON BREUNING (G.) Heilart der Diphtheritis. *Med.-chir. Centralbl.*, Wien, 1888, xxiii, 457; 469.—DEICHLER. Ueber den Ursprung des diphtherischen Giftes. *Deutsche Med.-Zig.*, Berl., 1888, ix, 1119.—DE DIOS PEINADO (J.) ¿Deben aceptarse, ó rechazarse los cáusticos en el tratamiento de la angina diftérica? *Gac. méd. de Granada*, 1888, vii, 585-596.—DUCLOS. Des difficultés du diagnostic différentiel de la diphthérie pharyngée et de l'angine couenneuse commune. *Rev. gén. de clin. et de thérap.*, Par., 1888, ii, 634-636.—ENGELMANN (F.) Untersuchungen über die antiseptische Wirkung verschiedener gegen Diphtheritis

empfohlener Mittel. Deutsche med. Wchnschr., Leipz., 1888, xiv, 945-947.—FLESCH (M.) Zur Casuistik der diphtheritischen Lähmung. München. med. Wchnschr., 1888, xxxv, 841.—GAUCHER (E.) Deuxième communication sur le traitement de la diphthérie par les cautérisations phéniquées. Bull. et mém. Soc. méd. d. hôp. de Par., 1888, 3. s., v, 454-460.—GIBBES (J. M.) The constant blue-gum steam treatment of diphtheria. Austral. M. J., Melbourne, 1888, n. s., x, 464-477.—HUBBARD (G. E.) The local treatment of diphtheria by Vlemink's solution or sulphuret of calcium. Med. Rec., N. Y., 1888, xxxiv, 703.—LOREY (C.) Behandlung der Diphtherie mittelst Einblasen von Zuckerstaub. Deutsche med. Wchnschr., Leipz., 1888, xiv, 944.

DISEASES OF THE MOUTH, TONGUE AND OESOPHAGUS.

STEWART (John). The mouth; with special reference to the science of dentistry. Glasgow, 1888, J. McGeachy & Co. 100 p. 12°.

EINHORN (M.) A case of dysphagia with dilatation of the oesophagus. Med., Rec., N. Y., 1888, xxxiv, 751-758.—LANNOIS (M.) Sur la langue noire. Ann. d. mal. de l'oreille, du larynx, etc., Par., 1888, xiv, 568-575.—OHMANN-DUMESNIL. Un cas de chancres multiples du palais. Ann. de dermat. et syph., Par., 1888, 2. s., ix, 718-720.—ROSENBERG (S.) Ueber die Wirkung des Perubalsams auf die "idiopathischen" Leukoplakieen und sonstigen Epitheltrübungen der Mundschleimhaut. Therap. Monatsh., Berl., 1888, ii, 449-458.

DISEASES OF THE RESPIRATORY SYSTEM.

BAUR (Georg). Het asthma, zijn ontstaan, zijn aard en zijne genezing, voor leeken uiteengezet. Amsterd., 1888, Seyffardt. 61 p. 8°.

DUHAMELET (Auguste). De l'analyse des crachats, examen physique, examen chimique, examen microscopique. [École de Pharmacie.] Par., 1888. 40 p. 4°. *

BEISSEL, Zur Diagnose der Lungensyphilis. Internat. klin. Rundschau, Wien, 1888, ii, 1567; 1612; 1649.—BRUEN (E. T.) Antipyrin in spasmodic cough. Univ. M. Mag., Phila., 1888-9, i, 223.—COHEN (J. S.) Syphilis of the larynx, trachea and bronchi. J. Laryngol., Lond., 1888, ii, 488-446.—COLLEVILLE. Quelques considérations sur la pectoriloque aphone. Union méd. et scient. du nord-est, Reims, 1888, xii, 209-213. DA COSTA (J. M.) Spasm of the bronchial tubes, like spas-

modic asthma, excited by a foreign body whaled into the trachea during an epileptic seizure. Boston. M. & S. J., 1888, cxix, 628. KITCHEN (J. M. W.) A contribution to the study of hay-fever. Med. Rec., N. Y., 1888, xxxiv, 641-648.—KÖRNIGER. Hamamelis und Hydrastis bei Lungenblutungen. Therap. Monatsh., Berl., 1888, ii, 505.—LINDÉN (K. E.) Atmosferiska förhållandens inflyttande på uppkomsten af ros, lunginflammationer och katarrher. Rés. De l'influence des conditions atmosphériques sur la fréquence de l'érysipèle, des pneumonies et des bronchites. Finska läk.-sällsk. handl., Helsingfors, 1888, xxx, 517; 578.—MAURIAU, Syphilis tertiaire de la trachée et des bronches. Arch. gén. de méd., Par., 1888, ii, 675-696.—MITTENZWEIG. Zur Casuistik des plötzlichen Todes. Ein Fall von Thrombose beider Lungenarterien durch embolische Thromben des rechten Herzens. Ztschr. f. Med.-Beamte, Berl., 1888, i, 359-364.—NIESEL (M.) Ueber die Anwendung der Kamphersäure bei Katarrhen verschiedener Schleimhäute. Ztschr. f. Therap. m. Einbzng. d. Elect.-u. Hydrotherap., Wien, 1888, vi, 163-165.—POTAIN. Syphilis pulmonaire historique; formes, anatomo-pathologique; symptômes et diagnostic. Gaz. d. hôp., Par., 1888, lxi, 1805; 1818.—POZZI (A.) et Hudelo. Des concrétions calcaires du poumon et de la plèvre. Gaz. méd. de Par., 1888, 7. s., v, 541; 558.—SMART (A.) Abstract of paper on some undescribed respiratory neuroses; their clinical and physiological aspects. Edinb. M. J., 1888-9, xxxiv, 529.—WINDLE (B. C. A.) A personal experience of hay-fever. Birmingh. M. Rev., 1888, xxiv, 259-265.

Expiatio Universalis.

A beautiful picture "THE BIRTH OF OUR LORD" surrounded by artistically grouped translations of St. John, III, 16, in 248 LANGUAGES. Recommended by the CLERGY of all DENOMINATIONS. Size 24x32 inches. No office should be without it. Sent on receipt of \$1.50, by

The Universal Art Publishing Co.,

AGENTS WANTED.

2 W. 14th Street, N. Y.

OUT-OF-TOWN READERS will find it to their ADVANTAGE ●●●●

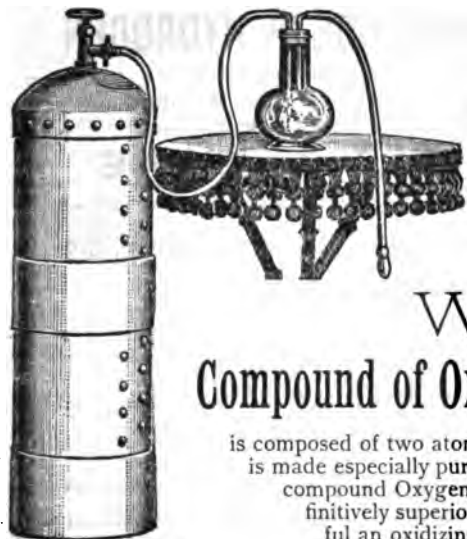
to apply to our

●●●● "Purchase and Sale Department"

for the purchase and sale of Physicians' Practices, Outfits, Libraries, Instruments, Drug Stores, etc.

Being centrally located in the metropolis, we are favorably situated for transacting such business in a manner satisfactory to those who may give us a trial.

Physicians Supply Co., 12th St. and 4th Ave., New York.



For the Treatment of
PHTHISIS,
PNEUMONIA,
 Asthmatic Bronchitis and
 Heart Failure,

WALTON'S Compound of Oxygen and Nitrogen, Monoxide

is composed of two atoms of Oxygen and one of Nitrogen Monoxide, and is made especially pure for medical use, this agent is not the so-called compound Oxygen nor ordinary commercial Oxygen, and is infinitely superior to pure Oxygen alone, which is too powerful an oxidizing agent where there exists inflammation.

Is in use at St. Luke's Hospital and is endorsed by the leading men in the profession, among others:

Dr. BEVERLY ROBINSON, New York.

Dr. J. SOLIS COHEN, Philadelphia.

Dr. F. LEROY SATTERLEE, "

Dr. WM. PEPPER, "

Dr. EDWARD L. KEYES, "

Dr. V. Y. BOWDITCH, Boston.

Entire Apparatus sent C. O. D. to any part of the United States, Price \$10.

WALTON OXYGEN WORKS, 280 Fourth Avenue, New York.

Send for Pamphlet.

Telephone, 187, 21st.

Office never closed.



UNIVERSAL GALVANO-CAUTERY HANDLE AND SNARE.

Meyerditz Brothers.

MANUFACTURERS OF

Electro Surgical and Optical Instruments,

295 & 297 FOURTH AVENUE, Cor. 23d St.,

NEW YORK.

STORAGE BATTERIES

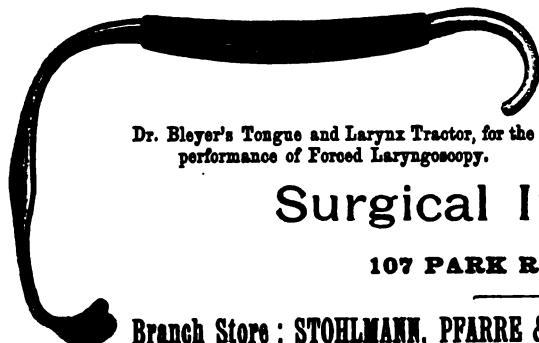
FOR

Galvano-Cautery, Electric Light and Motor Purposes.

EYE, EAR, NOSE and THROAT Instruments

A Specialty.

SEND FOR DESCRIPTIVE CIRCULARS.



Dr. Bleyer's Tongue and Larynx Tractor, for the performance of Forced Laryngoscopy.

ESTABLISHED 1826.

GEORGE TIEMANN & CO.

Surgical Instruments,

107 PARK ROW, NEW YORK.

Branch Store: STOHLMANN, PFARRE & CO., No. 107 East 28th Street, New York.

CH. MARCHAND'S

Chemist, Graduate of the Ecole Centrale des
Arts et Manufactures, Paris,

SPECIALITIES**PEROXIDE OF HYDROGEN**

Solution H_2O_2

CHEMICALLY PURE MEDICINAL,

Process Patented March 6, 1898,

GLYCOZONE

C. P. Glycerine saturated with active Ozone.

These are the most Powerful, HARMLESS, ODORLESS of all Antiseptics known, for both Internal and External use.

CAUTION.—No METALLIC substance must come in contact with these antiseptics.

CH. MARCHAND'S { Peroxide of Hydrogen, must be kept below 65° F.
Glycozone, must be kept below 80° F.

Why is it? That Peroxide of Hydrogen and Glycozone are not yet universally used by the medical profession?

1. *Because* :—Until Chas. Marchand's Peroxide of Hydrogen C. P. medicinal, was placed on the market, the so-called Peroxide of Hydrogen manufactured by others and sold by druggists, was totally unfit for medicinal purposes, owing to its impurities; and only fit for technical purposes.
2. *Because* :—The great majority of physicians have not as yet become acquainted with the proper ways to apply these antiseptics. Any information desired will be mailed free of charge on application.
3. *Because* :—Owing to the large demand for Chas. Marchand's Peroxide of Hydrogen medicinal, imitations and substitutes are being forced on patients, when physicians do not especially specify on their prescription:

Charles Marchand's Peroxide of Hydrogen, 15 Vol. capacity, medicinal.
Charles Marchand's Glycozone,

therefore we respectfully call attention to this fact, which is, in many cases, the cause why good results are not secured. By so prescribing, the profession will be protected against *unscrupulous druggists and manufacturers*, who are base enough to place the physician's reputation as well as the life of his patient in *jeopardy* by substituting worthless imitations.

Chas. Marchand's Peroxide of Hydrogen and Glycozone are put up only in 4 oz., 8 oz. and 16 oz. bottles, bearing his label and signature.


PRICE-LIST.**PEROXIDE OF HYDROGEN**

Solution C. P. medicinal, 15 volumes capacity.

| | |
|-------------------|------------------|
| In 1 lb. bottles, | Per doz., \$9.00 |
| In 8 oz. bottles, | " 5.25 |
| In 4 oz. bottles, | " 3.50 |

GLYCOZONE.

| | |
|-------------------|-------------------|
| In 1 lb. bottles, | Per doz., \$36.00 |
| In 8 oz. bottles, | " 21.00 |
| In 4 oz. bottles, | " 12.00 |

FOR SALE BY ALL RELIABLE DRUGGISTS.

Factory and Laboratory,

ERNEST DREVET,

10 West 4th Street, near Broadway, New York.

GENERAL DIRECTIONS

CONCERNING THE USE OF

CHARLES MARCHAND'S

Peroxide of Hydrogen and Glycozone.

Glycozone is used as a substitute for Iodoform, Iodole, Carbolic Acid, Bichloride of Mercury, Salicylate of Soda, Permanganate of Potash, Boracic Acid, etc., etc.

In cases of **Ulcers and Old Sores** :

1st. Wash with lukewarm water.—2d. Cleanse with 10 to 15 volumes, solution Peroxide of Hydrogen medicinal.—3d. Apply the Glycozone as a dressing on lint or punk : half Glycozone and half Glycerine C. P.

Applied once or twice daily, it will keep the diseased surface perfectly clean and sweet, and rapidly stimulate healthy granulations. No irritation needs to be feared.

For **Indolent Ulcers, Gangrenous Ulcers, etc.**, do as prescribed above, except that Peroxide of Hydrogen 15 volumes and Glycozone be used full strength.

In **Ulceration of the Cervix Uteri**, administer injections with a 3 to 4 volumes solution Peroxide of Hydrogen and apply the Glycozone on lint : 1 part Glycozone for 2 to 3 parts of Glycerine C. P.

This treatment is safe, sure and speedy in its action.

Sore Throat.—Anginas.—A solution of Peroxide of Hydrogen 2 to 4 volumes taken as gargle or irrigations will cure more rapidly than any other treatment.

Diphtheria.—Copious irrigations or gargles should be administered hourly with the above solution ; the Glycozone must be prescribed as an internal treatment, $\frac{1}{2}$ to 1 teaspoonful in a wine glass full of tepid water every four hours.

In **Phthisis**, deep inhalations of Peroxide of Hydrogen's vapor will bring relief to some extent. To do this, any vaporizer apparatus made of glass or hard rubber, such as Dr. J. Mount Bleyer's Ozonizer should be used.

Asthma must be treated in the same manner.

Special Directions will be mailed on application.

For internal use of Glycozone in Typhoid fever, Malarial fever, Small Pox, Scarlatina, Measles, Whooping Cough, Dyspepsia: The dose will vary according to the age of the patient and judgment of the physician.

Dose : One teaspoonful, diluted in water, taken after meals, will give very satisfactory results.

Solutions of Peroxide of Hydrogen for local use.

| | |
|--|--------------------------|
| On mucous membranes, injections, etc., | Solution 2 to 4 volumes. |
| Fresh wounds, | " 4 to 8 " |
| Chronic and indolent ulcers, | " 10 to 15 " |
| All surgical dressings, | " 6 to 10 " |
| Sprays, douches, irrigations and gargle, | " 2 to 4 " |
| Irrigation of cavities, | " 12 to 15 " |
| Nebulization—Inhalation, | " 15 volumes diluted |
| with chemically pure glycerine in the proportion of half and half. | |

The above solutions are obtained as follows :

2 to 4 oz. of the 15 vol. Ch. Marchand's Peroxide of Hydrogen for 14 to 12 oz. distilled water, give the 2 to 4 vol. solution.

4 to 6 oz. Peroxide of Hydrogen 15 vol. for 12 to 10 oz. distilled water, give the 4 to 10 vol. solution.

12 oz. of the 15 vol. Ch. Marchand's Peroxide of Hydrogen for 4 oz. distilled water, give the 12 vol. solution, etc.

 Please mention this paper.

TO THE Medical Profession Exclusively!

The Paris correspondent of the "Wiener Freie Presse" quotes the following regarding the critical analysis made by Dr. FAUVEL, the noted Paris laryngologist, in reference to Mackenzie's book "Frederick the Noble."

"* * * That which most surprises me is the fact that medication played a secondary rôle in the management of the case, I would have recommended the employment of *Coca Mariani* to rouse the flagging energies of the patient." * * * "My investigations, dating back to 1865, established the fact that Coca is a potent agent in combating debility. In Europe this remedy is relied on in cases of debility and where pain is a prominent symptom." * * * "As further proof the case of General Grant is cited, in which Doctors Fordyce Barker, Geo. F. Schrady, J. H. Douglas and Sands were active. *Coca Mariani* was employed in this case with success, and it was stated by the attending physicians that without the use of this drug the General would not have been physically able to undergo the strain incidental to the work of finishing his Memoirs." —*Berliner Tageblatt*.

The only Coca preparation endorsed by the Members of the Académie de Médecine of France.

Used in the Hospitals, Cliniques and Public Institutions throughout Europe.

Invariably uniform in its results, attested to by every physician who has given it a thorough trial.

As a strengthener of the nervous system, with especial good effect on the respiratory and digestive organs, it is pronounced unequaled.

The only tonic stimulant without any unpleasant reaction, and may be given indefinitely, never causing constipation.

Owing to the unusually large demand for *Vin Mariani*, and as it is not advertised to the Public, we are informed imitations and substitutions are being forced on patients where physicians do not especially specify *Vin Mariani*, and we would respectfully call attention to this fact, as being the cause of failure to secure the desired good effect in many cases where Coca is prescribed.

To familiarize Physicians with our bottle and label, we present fac-simile herewith.



TREATISE, 58 pages, with detailed description, formula, dose, etc. (translated from the French), will be sent gratuitously and post-paid to any physician mentioning this Journal.

Correspondence from Physicians is respectfully solicited.

MARIANI & CO.,

Please mention this paper.

New York Office: 52 West Fifteenth St.

JOURNAL

OF THE

Respiratory Organs

EDITED BY

J. MOUNT BLEYER, M. D.

COLLABORATORS

Dr. R. P. LINCOLN,
New York City.Dr. LOUIS F. SAAS,
New York City.Dr. DAVID H. GOODWILLIE,
New York City.Dr. ANDREW H. SMITH,
New York City.Dr. C. SLOVER ALLEN,
New York City.Dr. BENJAMIN F. WESTBROOK,
Brooklyn, New York.Dr. MOREAU R. BROWN,
Chicago, Illinois.Dr. W. H. GEDDINGS,
Aiken, South Carolina.Prof. F. MASSEI,
Naples, Italy.Sir MORELL MACKENZIE, M. D., Lond.
London, England.Dr. PROSSER JAMES,
London, England.Dr. G. HUNTER MACKENZIE,
Edinburgh, Scotland.Dr. J. GOTTSTEIN,
Breslau, Germany.E. CRESSWELL BABER, M. B., Lond.
Brighton, England.Dr. GEORGE W. MAJOR,
Montreal, Canada.ARTHUR HILL HASSALL, M. D., Lond.
St. Remo, Italy.Prof. RAMON DE LA SOTA Y LASTRA,
Seville, Spain.Dr. J. MICHAEL,
Hamburg, Germany.Dr. HOLGER MAYGIND,
Copenhagen, Denmark.

April, 1889

NEW YORK
NAPOLÉON THOMPSON, PUBLISHER
51 AND 53 MAIDEN LANE

FOR SALE BY J. H. VAIL & CO., MEDICAL PUBLISHERS, BOOKSELLERS AND IMPORTERS,
NO. 21 ASTOR PLACE, NEW YORK
BOOKS FOR REVIEW CAN BE SENT TO THE ABOVE ADDRESS.



SODEN MINERAL PASTILLES

PREPARED FROM THE

Sanative Salts of the highly renowned Springs of the German Health Resort,
SODEN in the TAUNUS, under the supervision and control of
W. Stoeltzing, M. D., Member of the Royal Board of Health.

They are to be used with great benefit in all

CHRONIC CATARRHS OF THE THROAT, LARYNX AND LUNGS.

SODEN MINERAL WATER

"WARMBRUNNEN No. 3."

AN UNFAILING REMEDY IN CASES OF

**CHRONIC CATARRHS OF THE THROAT AND LARYNX,
IN CHRONIC AND NEGLECTED BRONCHIAL CATARRHS,
AND CATARRHS OF THE STOMACH.**

SIR MORELL MACKENZIE writes :

"19 HARLEY STREET, CAVENDISH SQUARE, W.

"I have watched the effects of the **SODEN WATERS** for a considerable period and regard them as extremely valuable in obstinate catarrhal affections of the throat. The small amount of iron which they contain renders them very useful in the stages of Throat Consumption, and they do good in nearly all cases of relaxation of the mucous membrane.

"The Pastilles offer a most convenient method of using the Waters, producing both a local and general effect. They are especially beneficial in catarrhal diseases of the air passages ; I have frequently found them of great service in the cases of Singers and Public Speakers.

(Signed.)

"MORELL MACKENZIE, M. D., London.

"Late Physician to the London Hospital, Consulting Physician to the Hospital for Diseases of the Throat, Golden Square, and Physician to the Royal Society of Musicians, 2d September, 1887."

Sole Agents for the United States and Canada,

SODEN MINERAL SPRINGS COMPANY, LIMITED,

15 CEDAR ST., NEW YORK.

JOURNAL OF THE RESPIRATORY ORGANS. A MONTHLY JOURNAL.

DECEMBER, 1889.

J. MOUNT BLEYER, M. D., EDITOR,
88 Second Avenue, N. Y. City.

Contributors are invited from all parts of the world, whether subscribers or not.

All exchanges, books for review, and communications pertaining to the Editorial department should be addressed to the Editor.

All letters relating to advertising, subscriptions, reprints, or other business, should be addressed to the Publishers.

The Editor does not hold himself responsible for opinions expressed by contributors.

The publication day of this Journal is the 15th day of each month.

CONTENTS.

| | PAGE. |
|--|-------|
| ORIGINAL ARTICLES: | |
| The Weigert Treatment of Pulmonary Tuberculosis. | 251 |
| SELECTED ARTICLES: | |
| Tuberculosis in Sleeping Cars—J. W. WHITTAKER.. | 252 |
| ANALYTICAL RECORD: | |
| A case of Closure of the Jaws from Spastic Irritation of the Masseter due to Irritation of an Uncut Wisdom Tooth—ROBT. DENHAM PINNOCK... | 253 |
| Antipyrine in Whooping Cough..... | 253 |
| Intubation of the Larynx—A New Instrument as an Aid to Certain Operations..... | 253 |
| Diphtheria Conveyed by Cats..... | 253 |
| Fumez la Pipe..... | 254 |
| The Treatment of Obstructed Respiration in Anæsthesia..... | 254 |
| Gangrene of the Lung—Operation—Cure—ALFRED SHAWEN, M. D., Lond..... | 255 |
| Diseases of the Nasal Passages..... | 259 |
| Dr. Henry A. Lediard..... | 260 |
| Electrical Esophagoscope..... | 261 |
| Nasal Differentiation..... | 261 |
| Laryngectomy for Cancer..... | 261 |
| Anomalous Lobation of the Human Lung..... | 262 |
| Ozone in the Treatment of Phthisis..... | 262 |
| Physical Signs of Pulmonary Cavities—HENRY CONKLING, M. D..... | 262 |
| Hæmorrhage of the Larynx..... | 263 |
| INDEX to the latest Literature upon the Diseases of the Nose, Throat, Lungs and cognate Affections..... | 263 |
| Index to Volume I..... | 264 |

To ensure the early insertion of abstracts, authors are requested to *send a copy of any journal* which may contain a contribution on disease of the throat, nose and lungs, or on cognate affections, to the EDITOR, Dr. J. MOUNT BLEYER, 88 2d Ave., N. Y.

Afin de s'assurer une prompte insertion de leurs extraits, les auteurs sont priés d'envoyer un *numéro de tout journal* contenant un article quelconque sur les maladies de la gorge, du nez et des poumons, et sur les affections qui y ont rapport, au *Rédacteur du Journal of the Respiratory Organs*, Dr. J. MOUNT BLEYER, 88 Second Ave., N. Y. City.

Um die rechtzeitige Veröffentlichung von Auszügen zu sichern, werden die Verfasser gebeten, eine Exemplar von allen Zeitschriften, die einen Beitrag über Krankheiten des Kehlkopfes Nase und Lunge enthalten, an den REDACTEUR des JOURNAL OF THE RESPIRATORY ORGANS, Dr. J. Mount Bleyer, 88 Second Ave., N. Y. City, zu senden.

ORIGINAL ARTICLES.

THE WEIGERT TREATMENT OF PULMONARY TUBERCULOSIS.

"A Criticism of the Weigert Treatment of Pulmonary Tuberculosis," recently read before the Kings County Medical Society by Wales L. Cary, M. D., Physician to the Brooklyn Throat Hospital, indicated the inutility and even detriment of attempts at discontinuous sterilization of the lungs by superheated dry air, and was summarized as follows:

1. Comparative pathology and the natural history of pulmonary tuberculosis in man indicates fallacies in the conclusions drawn from the transposition of cultured methods into bases of therapeutics, and though undoubtedly 99.5° is the best temperature for the artificial cultivation of the bacillus tuberculosis, the "temperature optimum" for the *intra pulmonary* growth is much higher.

2. Tubercular bacilli in a favorable soil within an animal organism, are not attenuated nor their development assisted by temperature inimical to them in artificial media, but, on the contrary were rendered more virulent and more rapidly reproductive up to at last 115° F.

3. Temperatures necessary for discontinuous sterilization by any heat are impracticable and injurious to the infested organism,

4. It would appear from the analysis of the conditions of administration that Dr. Weigert is mistaken in supposing that the residual air "is located much above 113° F.;" and that in fact there is but little, if any, elevation of the pulmonary temperature.

5. If it were possible to produce and maintain, even for a short time, a pulmonary temperature approaching 113° F. there would be produced, apart from the effect upon the lung tissue, grave degenerative changes in the blood and entire cellular structure of the body, and probably death.

6. At temperatures far short of that claimed, or even without at all superheating the lung parenchyma or materially elevating the human temperature of the residual air, there would be produced an auto-infection directly deleterious to the organism at large and indirectly embarrassing to those nutritive activities upon whose integrity all hope of permanent benefit must rest.

7. The factor productive of benefit arising from the Weigert method is the dryness rather than the heat of the inspired air; in fact it were better cool or cold.

8. This desiccating influence cannot be exerted, nor precipitation of excess of moisture in the deeper parts of the lung avoided, except the air be at about the body heat in the upper respiratory tract.

9. Further benefit arises from the pulmonary gymnastics, psychological influences, and possibly in some cases a favorable action upon the bacteria in the larger bronchi.

SELECTED ARTICLES.

TUBERCULOSIS IN SLEEPING CARS.

By J. W. WHITTAKER, M. D., Cincinnati.

Am. Lancel, September:—It would be difficult to conceive of a conjunction of circumstances more directly aiding in the dissemination of this disease than is offered in a palace car. It is always badly ventilated; the vestibule car especially is close and hot, sixteen to thirty persons being crowded into a space which might make a small hall in a house, but never a bedroom for a pair of human beings. Somebody is always hurt by a draught, and windows are kept close to prevent full ventilation as well as ejection of sputa which is mostly deposited on the floor. Cuspidors never contain water, and are generally used as waste baskets or slop jars, and the temperature is raised to a degree sufficient to rapidly disseminate infectious matter.

With the gathering shades of evening the compartments which contain the bedding are opened to diffuse through it a disagreeable odor. The bacillus is treated to the visible luxury of clean sheets and pillow cases, but the blankets, mattresses, carpets, and worse of all, the curtains, remain the same till worn out. Consider now that every car curtain is, or has been, recently occupied by a consumptive patient, if only *en route* for a change of climate, and that through ignorance, carelessness or weakness, there comes to be deposited upon bedding, curtains, etc., tuberculous matter! What becomes of it if it be not dried and disseminated through the car, or gradually incorporated into the lungs of the tired traveller?

It is a curious fact that the first note of alarm of this kind should have been sounded by a layman, viz., a barrister in Australia, who published in the *Australasian Medical Gazette*, last November, a protest against admitting invalids into the same cabins with healthy people. The danger is in one sense far greater in ships, in that people are so closely confined in the cabins, and, as the author states, considerations of humanity prompt the well man to close the port for the protection of the sick. Then, also, the trip is much longer. Yet on board ship we can escape to the upper deck, where in fact many spend most of their time. But on the train there is no such retreat, and on some of the express trains not even do we get out into the fresh air for our meals, or other necessities of life. A ship passenger may mount to the deck, a prisoner is allowed a part of each day to walk in the free, as the Germans say, but a traveller on an express train is, for all the world, in the condition of dogs enclosed in boxes, made to breathe atomized tuberculous matter until even dogs, naturally immune, become infected with the disease.

But it is one thing to find fault, and another to suggest the remedy. The plush, velvet and silk hangings must go. Seats must be covered with smooth leather that can be washed off;

carpets give place to rugs, to be shaken in the open air at the end of every trip—better still, abolished for hardwood floors; the curtain abomination must make way for screens of wood or leather; the blankets of invalids' beds be subjected to steam at a high temperature; mattresses covered with oiled silk, or rubber cloth that may be washed off; and above all things, invalids provided with separate compartments shut off from the rest of the car, with the same care which is taken to exclude the far less offensive or dangerous smoke of tobacco; cuspidors half filled with water, and consumptive travellers provided with sputum cups which may be emptied from the car. It is not necessary to say here that the sole and only danger lies in the sputum. The destruction of the sputum abolishes the disease. When the patient learns that he protects himself in this way as well as others—protects himself from the auto-infection, from the infection of the sound part of his own lungs—he will not protest against such measures.—*The Epitome*, Oct., 1889.

ANALYTICAL RECORD

OF CURRENT LITERATURE RELATING TO THE NOSE, THROAT AND LUNGS.

A CASE OF CLOSURE OF THE JAWS FROM SPASTIC IRRITATION OF THE MASSETER DUE TO IRRITATION OF UN UNCUT WISDOM TOOTH.

By ROBT. DENHAM PINNOCK, M. D., Ch. M.

HON. SURGEON TO THE BALLARAT HOSPITAL, VICTORIA.

The rarity of cases of this kind induces me to publish the following notes:

John McL., *et. 27*, married, sawmiller, residing 30 miles from Ballarat, consulted me on the 19th of August with this history:

Relatives all healthy; never suffered from any disease himself, except a mild attack of jaundice four years ago. Was in good general health until five years ago, when he began to suffer from intermittent pain in the region of the left masseter muscle. For this he tried various external remedies, without avail, and continued to do so for four weeks, when he noticed that the gum was swelling behind the last tooth of the lower jaw on the left side. This swelling became exceedingly painful, and on the following day he found that he could not separate the jaws more than a quarter of an inch. He continued rubbing pain-killer on the cheek and applying hop poultice without effect for four days, during which period he lived on liquid administered in a spoon. On the fifth day of the closure he came in for advice.

I found it impossible to separate the jaws more than a quarter of an inch, and the attempt to do so gave him great pain. By means of a reflected light from the frontal mirror, and

keeping the tongue out of the way with a catch forceps, I was able to examine the cavity of the mouth, and saw a minute portion of the outer edge of the crown of the wisdom tooth projecting from the gum at the left side of the lower jaw. The wisdom tooth on the opposite side was fully erupted. As there appeared to be insufficient space between the second molar and the ramus of the jaw for the eruption of a tooth of corresponding dimensions to the opposite molar, and having in view the history given above and the absence of any other discoverable cause for the closure, I took him the following day to Mr. McBurney, a dentist of high repute in this city, and requested him to try and remove the wisdom tooth, and if he found that impossible, to take out the adjoining molar. Chloroform was given, and even when thoroughly anæsthetized we could not separate the teeth more than three-fifths of an inch. Finding it impossible to remove the wisdom tooth even after freely dividing the gum over it, Mr. McBurney, with great difficulty, succeeded in removing the adjoining molar. The patient had to be kept fully under the chloroform, as the jaw began to close directly its administration was interrupted. The effect of the removal of this tooth was very marked, the patient on coming to his senses being able to separate the teeth to the extent of an inch without assistance and without pain. On the following day he was able to open his mouth to its fullest extent, and all the pain which he had been suffering for so many weeks had gone. He returned to his home a few days afterwards and has had no relapse.

Mr. McBurney has kindly furnished me with the following particulars about the tooth extracted :

From the crown to the apex of the fangs it measured $1\frac{1}{4}$ in.

The expansion of the fangs in the line of the jaw (from before backwards) was three-fifths of an inch.

The angle of the distal fang was 30 degrees. The mesial fang was bifurcated.

Mr. McBurney tells me that he has never met with such a degree of expansion in the fangs of a tooth as the above, and that the irritation of an uncut wisdom tooth in the presence of such a crowding must have been very great.

—*Australasian Medical Gazette*, Nov., 1889.

— o —

ANTIPIRINE IN WHOOPING COUGH.*

During the past few months a great deal has been written about the alleged efficacy of antipyrine in the treatment of whooping cough. From a careful perusal of a number of these articles, we think an unbiased observer must be led to the conclusion that this treatment is not only practically inoperative, but is attended by greater or less dangers.

In Monti's Klinik, in Vienna, twenty-eight cases were carefully treated with antipyrine, in

doses ranging between five and thirty grains in the twenty-four hours, with an entirely negative result; the average duration of the twenty-eight cases being fifty and a half days. Neither the intensity nor the number of paroxysms were in any way influenced. Baginsky records a very similar experience. Tuczek treated his own child, a boy aged four, who was suffering from whooping cough, with six grains of antipyrine three times daily. Towards the end of the third week the little patient became soporose, had violent convulsive attacks resembling cortical epilepsy. The heart's action was weak and frequent. The pupils were dilated and the temperature subnormal. A maculous exanthem made its appearance. During the whole period of treatment the urine contained acetone. Tuczek attributes all the untoward symptoms to the antipyrine. The case certainly teaches the valuable lesson that antipyrine should always be given with caution, especially to children, when a continuous action is desired. From its direct influence on the albuminous constituents of the blood, its prolonged use is certainly attended with considerable danger.—*The College and Clinical Record*, Dec., 1889.

— o —

INTUBATION OF THE LARYNX—A NEW INSTRUMENT AS AN AID TO CERTAIN OPERATIONS.

Thomas Annandale, *British Medical Journal*:—In operations involving the mouth and naso-pharynx, in which bleeding may take place into the air passages and interfere with respiration, or in operations in which respiration is not satisfactory during the administration of an anæsthetic, intubation of the trachea can, in most cases, be substituted for preliminary tracheotomy, and is a simpler and safer means of aid. As a means of restoring and carrying on respiration in cases of sudden obstruction in the larynx or trachea, intubation may also be substituted for tracheotomy. For these purposes the author successfully employed a gum-elastic caterer. Owing to certain disadvantages, he had constructed an elastic tube (not too pliable), having a slide of hard rubber which can be adjusted in any position to prevent compression by the teeth. To the end of the tube protruding from the mouth there can be attached a piece of tubing, through which an anæsthetic may be administered if desired. For intubation in cases of acute inflammatory affections of the larynx, or for stenosis of the larynx, the result of chronic inflammatory conditions or of accidental wounds, the author uses the tubes of Dr. O'Dwyer.—*Archives Pediatrics*.

— o —

DIPHTHERIA CONVEYED BY CATS.

Dr. Lawrence, of Halstead, Kan., writes that last winter he was called to attend a little three-year-old girl suffering with diphtheria. Upon careful inquiry it was found that she had

*Leading article in *Montreal Med. Jour.*, October, 1889.

not been exposed to the disease, although there were some cases within a mile of her father's house. He incidentally learned that there was a sick cat in the house, which had been fondled by the little girl some days before. The cat died shortly after its playmate became sick, and a second cat also became sick and was killed. Suspicions were aroused that the disease was conveyed by the cat, and inquiry revealed the fact that one neighbor farmer had lost seventeen cats and another fifteen, with some throat trouble. One of the farmers stated that he had examined the throats of some of the cats, and found them covered with a white membrane. The little girl died, and her little brother a few days later had a severe attack of the same disease. Cats are disposed to run from house to house at night, and one diseased cat may be the means of carrying diphtheria to half the cats in the neighborhood, they in turn carrying it to the children whom the parents are taking every means to protect from danger. It is well to keep an eye on the cats in times of diphtheria.

—*Medical Age—Medical Analectic.*

O

FUMEZ LA PIPE.

Under this heading a Swiss journal has the following: A celebrated specialist for diseases of the throat, nose and ear asserts that tuberculosis is making alarming progress among cigar smokers. He does not attribute this to the use of tobacco, but to the manner in which cigars are manufactured. Rolling the tobacco leaf is a craft that requires neither strength nor intelligence, consequently in this branch of the operation it is usual to find male and female operatives who are weak and diseased, and who, in consequence of their infirmities, are economical employees. Most of these suffer from scrofula and tuberculosis. They cough, and often give the finishing touch to a cigar with their lips. If Koch is right, all who smoke cigars thus manipulated introduce into their bodies the bacillæ tuberculosis. If the "soil" is favorable, the bacillæ prosper and "phthisis" is presently the result of the habit of smoking these cigars.

The moral drawn from all this is "Fumez la Pipe," because the tobacco does not come in contact or direct communication with any of the respiratory organs, and also because it has not been manipulated, like the cigars, by the hands and lips of the diseased workpeople.—*The College and Clinical Record.*

O

THE TREATMENT OF OBSTRUCTED RESPIRATION IN ANÆSTHESIA.

The increasing frequency with which anæsthetics are given lends perennial interest to the discussion of methods by which the dangers incident to profound surgical narcosis may be averted. The epiglottis has long been considered a possible factor in the fatal termination of certain cases of etherization. Lister showed years ago that in complete muscular relaxation

the epiglottis might drop backward, acting as an operculum to the laryngeal opening; he also proved that traction exerted upon the tip of the tongue had no influence in raising the epiglottis.

This whole subject was again revived by Dr. Benjamin Howard, who, in a paper read last year before the Medical Society of London, suggested that the usual cause of death in surgical anæsthesia was to be attributed to the valve-like action of the epiglottis, which, falling backward, completely closed the laryngeal aperture, rendering abortive all efforts at artificial respiration. Howard again proved that traction exerted upon the tip of the tongue does not remedy this faulty position of the epiglottis, and demonstrated what he termed "a new and only way" of carrying the base of the tongue, the hyoid bone, and the epiglottis forward, and rendering the laryngo-pharyngeal air-way absolutely and certainly patulous. This method consists in bringing the patient's head over the end of the table, till it swings free, when it is carried backward and downward till the utmost possible extension of head and neck is obtained. That this method is efficient in carrying forward the hyoid bone, and consequently the base of the tongue, and the epiglottis, there can be no doubt. Howard's explanation of the anatomical reasons for this was so clear and forcible that it gave strong support to certain of his conclusions which were not so well founded.

Shortly after the appearance of Howard's article, Martin and Hare (*Medical News*, March 2d, 1889) published the results of repeated observations and experiments, made by them upon both the living and dead body. They showed that while Howard's method did what was claimed for it, it was by no means the only or most desirable method of bringing about this result. They argued that in impending death due to epiglottic occlusion, the condition is recognizable by very obvious signs, namely, the absence of air-sound passing through the larynx, the absence of the respiratory murmur, and the sucking in of the epigastrium, supra-sternal notch and intercostal spaces during inspiratory effort. Hence, as the histories of fatal cases are silent on these points, it is fair to infer that the epiglottis rarely acts as the direct cause of arrested respiration. These observers also showed that while traction applied to the tip of the tongue produced no effect upon the epiglottis, traction or forward pressure exerted upon the dorsum or base of the tongue, posterior to the anterior half arches of the palate, at once carried the epiglottis far forward. They objected to Howard's method chiefly on the ground that the soft palate is strapped tightly over the dorsum of the tongue, and that in place of mouth breathing, the patient is made to depend for air upon the nasal passages, which are scarcely sufficient at best, are subject to all degrees of obstruction, and are frequently entirely occluded by congestive swelling or abnormal formation. Martin and Hare conclude that any method by which the hyoid bone is carried forward will immediately and infallibly raise

from the posterior wall of the pharynx both the epiglottis and the base of the tongue, that there are several ways by which the hyoid bone can be carried forward, but that the best, simplest and safest method, and one as sure as Howard's, is to moderately extend the head and to push the lower jaw well forward by force applied behind its rami. Foulis (*Edinburgh Medical Journal*, August, 1889) advocates as the only safe and certain way in which the tongue and epiglottis can be eliminated as obstructive factors, the application of forward pressure to the back of the tongue; this can be exerted by the finger of the surgeon, or by means of a spoon, fork, or any similar object which can be inserted into the mouth. If a spoon is used its handle is carried well down over the base of the tongue, and the latter is forced forward by pressing the bowel upward, the upper incisor teeth being used as the fulcrum of the lever. There can be no doubt of the efficacy of this treatment, nor, we think, can there be a question but that it is much safer and easier of application than the method advocated by Howard. Dr. John Smith pointed out long since that extreme extension of the head might dangerously compress the internal jugular vein against the transverse process of the atlas, and cases have already been reported where the extension method distinctly failed to render the air-way free.

In case of threatened death from obstructed respiration, artificial respiration being at once instituted, moderate extension of the head and pushing forward of the jaw would be first indicated as the simplest way of insuring patulousness of the air passage; if this fails the tongue should either be drawn forward by a tenaculum inserted into its base behind the anterior half arch, or pried forward according to Foulis's method; if there is still obstruction, tracheotomy or intubation should be promptly performed. — *University Medical Magazine*, Nov., 1889.

— o —

GANGRENE OF THE LUNG—OPERATION—CURE.*

BY ALFRED SHEWEN, M. D., Lond.,

PHYSICIAN TO THE PRINCE ALFRED HOSPITAL, SYDNEY.

The two cases which I now bring under your notice were under my care in Prince Alfred Hospital. With regard to the first, I may say at once that the diagnosis as to the exact nature of the disease from which the man suffered was uncertain. We could never come to any positive decision as to whether the mischief was gangrene, abscess of the lung, or empyema; and, when I have read the notes of the case to you, I think you will agree with me that it is impossible to arrive at a positive opinion. The second case was without question gangrene of the lung. I am largely indebted to Drs. Gra-

ham and McAllister for detailed notes and watchful care of the case.

CASE I.

J. B., a seaman, aged 28, a Scotchman, employed on board one of the small steamers trading between Sydney and Fiji. Whilst his ship was lying at Levuka in September last year, six months previous to his admission to the Prince Alfred Hospital, he was attacked with diarrhoea and vomiting and a dry hacking cough, with sputum consisting of blood and matter. He felt ill, but was not bad enough to lay up altogether, and kept at his work whilst the ship steamed from Levuka to Suva and Noumea and on to Sydney, where he arrived in about ten days. He laid up on board without medical advice whilst in port, although he was coughing and spitting blood and matter all the time, and on the boat resuming her voyage to the islands, as before, he returned to its duties. On the return of the boat to Sydney he found it necessary to give up work and apply for advice. During the next three or four months he appears to have wandered from one practitioner to the other, during which time he lost a great deal of blood from the lungs, until on the 3d of April last he was admitted to the Atherden Ward of Prince Alfred Hospital. The notes of the case record that on admission he was found to be in a very feeble condition, much blanched from loss of blood, with a constant hacking cough and great dyspnoea, with a sputum consisting of blood and pus, which was not fetid. His condition was very urgent. His temperature was 101.5°, pulse 118, respiration 42. Physical signs: right chest posteriorly absolutely dull in lower half, with absence of breath sounds and vocal fremitus. Rest of chest fairly normal. Exploratory syringe gave us dirty looking non-fetid pus. On the day after his admission my colleague, Mr. Hankins, was kind enough to open his chest for me by the removal of about two inches of a rib just below the angle of the scapula. No difficulty was experienced in the operation, but owing to the somewhat doubtful character of the case Mr. Hankins used the utmost care to ascertain whether there were any adhesions between the costal and pulmonary pleurae, previously to opening into the cavity. As a matter of fact the pleurae were found much thickened and no separation of the two membranes was discoverable. About three-quarters of a pint of thickish dark-grey non-fetid pus escaped on the opening being made. When the cavity was explored by means of the finger, ragged carnified tissue could be felt all round, and as far as could be judged by the finger the cavity appeared to be in the lung substance. After the operation two large drainage tubes were inserted, but the cavity was not washed out.

On the day after the operation he looked much better, his tongue was cleaner, temperature had fallen about 2°, and there was hardly any cough. The cavity was washed out, whilst patient was sitting up, with a solution of iodine about the color of healthy urine.

* Read before the Medical Section of the Royal Society of New South Wales.

On the 7th of April, which was three days after the operation, the notes say that there was a quantity of curdy grey non-fetid pus discharged mixed with more or less blood.

April 8th.—Discharge mixed with a good quantity of blood.

April 9th.—Temperature normal within a fraction, pulse 90, respiration 38. Discharge not so blood-stained or profuse.

April 10th.—Profuse discharge of blood-stained slate-colored fetid pus. Temperature normal, pulse 96, respiration 24. Tasted iodine on washing out cavity.

April 12th.—Temperature normal, discharge slightly fetid, cavity seems to be closing up fast. On syringing out some distress was caused, and patient coughed up a good deal of bright blood.

April 13th.—Temperature normal, pulse 98. Good deal of distress on washing out, patient tasted iodine distinctly, no blood.

April 18th.—Can still taste iodine. Temperature normal, very little cough, appetite good, cavity small.

April 21st.—Smaller tube put in, no cough, very little discharge.

From this date onwards the patient made an uninterrupted recovery, and he was discharged on the eleventh of the following month, fairly hearty and strong, having been in the hospital almost exactly five weeks.

REMARKS.—As I have said before, I have some doubt as to the exact nature of the mischief in this man's chest. One point is quite clear, however, viz., that he was not suffering from gangrene of the lung. As far as we could judge, by exploring with the finger immediately after the operation, it was, I think, the general opinion of the staff that the finger went straight into the lung. Carnified bands with irregular hardened walls were met with all round, a condition very unlike that found in an ordinary case of empyema. Then, again, we had a history of hæmoptysis with a copious sputum of the same kind of fluid as was found on opening the chest. A history of hæmoptysis is very unusual, to say the least, in a case of empyema. There was also undoubtedly from the first a free opening between the bronchi and the cavity we had opened into, for the distress which was caused a few days after the operation by washing out the cavity was so great that we had to be content with drainage; also there was no doubt that the man could taste the iodine after the injection. I do not lay so much stress upon this latter fact, because in my experience of cases of undoubted empyema patients often taste the iodine after the pleural cavity is washed out. But the amount of distress which was caused by washing out the cavity in this case was far greater than is met with in cases of empyema, where we get a communication between the pleural cavity and a bronchus. Then the man's history points to there having been some thing very unusual in the case, or why should he have been passed on from one practitioner to another without anything having been done

for him; more than one practitioner having told him that there was nothing to be done for him? It is most improbable that the man could have presented the usual signs of empyema when such an opinion was given of his case, for we all know that the diagnosis of a chest half full of fluid does not present any difficulty.

I am inclined to think that the man had been suffering from chronic pneumonia, which resulted in a cavity of a non-tubercular character; that this cavity became distended by the accumulation of pus bringing about the copious sputum and hæmoptysis; but that until the time of his admission to Prince Alfred Hospital neither the quantity of fluid nor its proximity to the walls of the chest had been such as to enable those under whose care he had previously been to come to a diagnosis as to the true character of the case. It is possible also that it may have been a suppurating hydatid of the lung, but there was no sign of hydatid membrane at any time.

CASE II.

J. S., aged 37, a cook, and a native of Ireland. He was admitted to Prince Albert Hospital on the 6th of February last with the following history: About two months previous to admission he caught a severe cold, with rigors, was laid up for three days in bed, his cough being very severe, but there was no rusty sputum and hæmoptosis. During the next six weeks he got gradually weaker with a hacking cough, which kept him awake at night. His appetite was very poor, and he vomited his food. There was no history of chest trouble in his family.

On admission to the hospital his temperature was 100° F. at night; pulse, 72. There was a constant hacking cough with profuse muco-purulent expectoration, dullness at right base posteriorly, faint tubular breath sound, increased vocal resonance and fremitus and some friction.

On the 8th, two days after admission, his morning temperature was 100.2° F. and his evening temperature 102.6° F. Sweated much at night and cough troublesome, with quantity of muco-purulent expectoration.

On the 10th, the sputum for the first time had an unpleasant odor. The physical signs were dullness at the right base posteriorly as high as the inferior angle of scapula, with faint tubular breathing, rather œgophonic vocal resonance and diminished vocal fremitus. An exploratory needle introduced into the right base gave us slightly blood-stained purulent fluid which did not stink.

About the 14th the sputum became undeniably fetid, with the characteristic odor of gangrene of the lung. At the same time the stench of the man's breath began to get almost insufferable. He slept very badly, was falling away very fast, and began to exhibit that peculiar earthy appearance which is so characteristic of gangrene.

On the 20th the physical signs were much

the same, viz., dullness at right base with very faint tubular breath sounds. A needle introduced into the right base gave us brownish-yellow, fetid fluid, precisely similar to that expectorated. The general condition was much the same.

The ward notes of the 27th of February say: Temperature, night, 102.2; morning, 99.8; tongue moist, slightly coated, red in parts; pulse, 84, soft and weak; expectoration mucopurulent; cough troublesome at night; perspires profusely; does not look so well to-day; feels weak; appetite fairly good; dullness behind on the right from middle of scapula downward, this dullness becoming absolute just below inferior angle of scapula. Over the upper part of this dullness the breath sounds are harsh, and vocal resonance and fremitus are increased. Below this, over the area of absolute dullness, breath sounds are weak, almost inaudible, with diminished vocal resonance, except at one spot about one inch below the inferior angle of scapula and one inch internal to it, where the breath sounds suddenly became cavernous, and pectoriloquy is present.

On the 29th the ward notes say: Right back generally dull on percussion, but at angle of scapula and opposite ninth dorsal spine the percussion note is distinctly metallic and tubular like percussing a large iron gas-pipe. Below this area the dullness is absolute. Over this area the respiratory note is distinctly cavernous, whilst above its expiration is prolonged, with mucous râles, and below the breath sound becomes faint and almost absent. The sputum is brownish-green and particularly fetid to-day.

For the next few days things continued much the same, although it was evident that the patient was not making any headway against the disease. I was quite certain at this point that we had to do with a genuine case of gangrene; the character of the sputum, the foul, fetid, intensely disagreeable and peculiar character of the odor was unmistakable. Then there was the evidence of a cavity near the angle of scapula. This, together with the man's appearance, the cold, clammy sweats and earthy skin, left no vestige of doubt in my mind that we had to do with a typical case of gangrene of the lung.

On the 5th of March there was evidence that the cavity of the angle of scapula had filled up, for the cavernous breathing had disappeared, and the dullness had become absolute, with scarcely any vocal fremitus and no vocal resonance except some faint ægophony. An exploratory needle between the 9th and 10th ribs at the angle of scapula gave a stinking pus. Under these circumstances I thought the only course left open to us to save the man's life was to open up the lung by the removal of a portion of a rib.

On the 7th of March Mr. Hankins saw the patient with me, and it was decided that the operation should be performed at once. The hospital notes of this date say:—Temp. (n.) 102.8, (m.) 99°; tongue moist, slightly coated, reddish, irritable, and denuded of epithelium at

parts; pulse, 84, soft; slept very little last night; cough very troublesome; spat up a good deal of fetid, purulent matter; has a good deal of pain; breath sounds rather more amphoric over situation of vomica to-day. In the afternoon Mr. Hankins opened the chest by the removal of about 2 in. of the 9th rib just below the angle of scapula. There was no difficulty in the operation, the costal and pulmonary pleuræ being closely adherent and the cavity of the abscess being immediately beneath the pleuræ. Whatever lung tissue there had been had almost disappeared, and there was no hemorrhage to speak of. About a pint of horribly stinking pus was evacuated, and when the cavity was explored by the finger, hard, resistant bands with ragged, uneven walls could be felt. There was very little blowing in and out of the opening on respiration. An attempt was made to slowly irrigate the cavity by means of lukewarm boroglyceride, but the patient became very blue and the pulse failed, so the attempt was given up. Two large drainage tubes, each with a calibre of about $\frac{3}{8}$ of an inch, were left in.

March 8.—Cavity syringed out with boroglyceride; patient sitting up, without causing any distress. Powdered boracic acid dusted into cavity.

March 9.—On removing the tubes it is quite easy to see that the cavity has ragged, sloughy walls; that it is of irregular shape, about 3½ in. deep. The finger cannot be passed upwards or downwards along the chest wall inside the cavity—as can be done in a case of empyema, but is met by the hardened lung tissue. The cavity is irregularly pear-shaped, with the large end inwards. Air rushes in and out, now violently, on coughing. Patient says he feels better.

March 11.—Temp, 102.6° (n), 99.2° (m). Tongue slightly dry, glazed and cracked. Expectoration fetid, discharged fetid.

March 14.—Patient is very weak. Bronchi all over both lungs. Expectoration more profuse and fetid. About this time I feared we were going to lose our patient, for he became so exceedingly prostrated. But he took plenty of food and a fair amount of stimulants, and he gradually struggled into smoother water. On some days the expectoration and discharge would be almost devoid of fœtor, and there would be very little of it; then it would suddenly become profuse and stinking, more especially on the patient coughing violently. It evidently got pocketed somewhere. Nevertheless the cavity gradually got smaller, and the condition of his lungs improved.

March 17.—Cavity very much contracted, will only admit little finger.

March 20.—Purulent fetid expectorations and discharge when the patients coughs violently. The whole of the right back is dull on percussion, but breath sounds can be heard to extreme base, even below the wound. Sleep well, appetite good. Temp. 99° (n), 98.4° (m).

March 29.—Patient got up for the first time to-day. Discharge and sputum fearfully offensive on violently coughing. When wound is

syringed out fluid appears to go straight through into patient's mouth.

April 4.—Weight, 8 st. 12½ lbs.

April 26.—Weight, 9 st. 3 lbs. Syringing to be stopped as it causes so much irritation. Expectoration and discharge sweet. The cavity is now reduced to a mere canal. The right back is still absolutely dull below wound, but is resonant above. Respiratory murmur is quite distinct to margin of wound, faint, but distinct below wound. There is a marked improvement in patient's general condition.

The communication with the lung by means of the external aperture is very free; air whistles in and out on respiration; in fact expiration and inspiration can be carried on by means of the aperture in the chest wall, the mouth and nose being kept closed. On looking into the wound during respiration an aperture can be seen, which looks exactly like the cut end of a bronchus; it contracts and dilates suddenly during inspiration and expiration.

April 30.—About this date he suddenly became much worse; his expectoration became more profuse, and the whole of the right axilla, except the extreme apex, became dull on percussion, with faint bronchial breath sounds.

The next night his temperature was 103°, and I much feared that we had another batch of gangrene to deal with. Whatever there was it did not empty into the original canal, for the discharge kept sweet, but the sputum again returned to its original odor, and stank most horribly. However, he struggled through this attack, and on the 16th of May the notes say that there was but little sputum, and that was sweet; his appetite was improving, and he was getting up every day; and the breath sounds in axilla were becoming more natural. After this he made flesh rapidly and on the 25th of June weighed 10 st. 2½ lbs.

On the 9th of July he had gained 3 lbs., and the 19th of July the ward notes say that he was able to work about the ward. From this time forward he made an uninterrupted recovery. At the present time he has a small tube in, which has really been kept in longer than was positively necessary, in order that I might be able to demonstrate the rush of air in and out of the lung by means of a whistle which I have provided for the purpose. You will see that he presents the phenomenon of a man being able to blow a whistle by means of a hole in the chest wall, either on inspiration or expiration; but he has no cough, and is quite well and hearty, and might return to his work any moment.

REMARKS.—I don't think that there could be any reasonable doubt that this was a case of gangrene of the lung. The dulness, the gas-pipe dulness at times, the cavernous respiratory note, the increased vocal fremitus when the vomica was empty, and the peculiar stink from the sputum make a group of symptoms which point unmistakably to one conclusion. Neither have I the slightest doubt that the man would have died had we left him alone much longer,

and that we should have been able to demonstrate it as a case of gangrene of the lung in the deadhouse had his chest not been opened.

The success we have met with in this case corresponds with that met with by others in similar cases in England and on the Continent. We may, in fact, regard it as the only successful mode of treating gangrene of the lung. A few years back—before this operation was attempted—this disease was one of the most fatal one had to contend with. Now, provided the position of the cavity can be accurately localized, we may give a much more favorable prognosis.

The lung has been opened up for bronchiectic cavities, and for phthisical vomicae, but the success which has attended these operations has not been nearly so great as it has been when the lung was opened up for gangrene. The difference in the results is no doubt due to the fact that bronchiectic cavities and phthisical vomicae very rarely occur as single cavities. Another cause for this difference is that these cavities as a rule lie much deeper in the substance of the lung than a gangrenous one does. No doubt phthisical vomicae do sometimes lie directly against the thoracic wall without any lung substance worth speaking of between them and the operator, but this is not by any means the rule. Another great advantage which the operation for gangrene possesses over that for either hydatid or bronchiectic, and often over that for phthisical vomicae, lies in the fact that in gangrene firm adhesions between the costal and pulmonary pleurae are almost invariably present, so that we run less risk of setting up pleurisy from the escape of the stinking discharge into the pleural cavity. Everyone of us must recollect that in making a *post-mortem* upon a patient who has died of gangrene of the lung, it is extremely difficult to draw the lung from the pleural cavity without tearing the lung tissue, in consequence of the strong pleural adhesions. I do not recollect that I have ever been able to get a gangrenous lung out of the chest without tearing the tissue. But the question naturally arises as to when these adhesions occur, when are they likely to be of such a character as to be thoroughly protective. This is a very difficult question to answer, but I can see but little harm in our waiting as long as can be done with safety, in order that they may be thoroughly established. I think our patient runs less risk if we allow the gangrenes to go on for a week or two, more or less according to the severity of the case we have to deal with, so that the costal and pulmonary pleurae may become one inseparable membrane, than we do if we open the lung immediately we have satisfied ourselves that we have a collection of pus in that organ, for nothing can be much more certainly fatal to our patient than to set up septic pleurisy. Added to this, I think we must regard it as almost impossible so to secure the costal and pulmonary pleurae together by stitching that they shall not become separated by the effort of respiration.

There is a further advantage, in my opinion,

in waiting as long as we safely can in these cases of gangrene, and that is that the lung tissue between the cavity and the operator becomes attenuated, and there is less risk of hemorrhage and septic absorption. Added to this the operation becomes a much easier one.—*The Australasian Medical Gazette, April, 1889.*

— o —

DISEASES OF THE NASAL PASSAGES.

At the meeting of the American Rhinological Association, Dr. R. S. Knode, of Omaha, contributed a paper on the "Importance of Constitutional Treatment in Rhino-Pharyngeal Inflammations," in which he said the rhinologist oftentimes becomes discouraged, with all the means at his command, when he finds that patients do not improve as he would like them to do; but if the history is carefully looked into there would be found some diathetical condition at the bottom of the nasal trouble, which, if the rhinologist could relieve, would cause a subsidence of the local inflammation. This catarrhal condition frequently extends into the stomach and intestines, and from the duodenum to the ductus choledochus, in which we have the combined symptoms of gastro intestinal catarrh associated with jaundice, and when the nutritive system becomes implicated, there is a wide range of sympathetic disturbances which invariably follow.

The principal sympathetic phenomena transmitted from this condition are sick headache, depression, melancholy, sleeplessness, hypochondria; the heart's action is often disturbed; there is sympathizing dyspnoea, and to these may be added languor, lassitude and irritable temper.

The general principles in the treatment of such cases would be a properly restricted diet, consisting of milk, stale bread, soft boiled eggs and well-cooked rice. If milk is not well tolerated it should be peptonized; food containing little starch and largely diluted with water are the best tolerated. Among the internal agents may be mentioned the alkaline carbonates, combined with purgative salines, especially where the nasal trouble is associated with disease of the stomach, which is a frequent complication in malarial districts. And in these regions no treatment is effective until we diminish the engorgements of the liver and spleen, and nothing accomplishes this so well as the use of alkaline and saline laxatives, and these may be assisted by small doses of mercurials. Carlsbad and other mineral waters have been extolled; but phosphate of soda and Rochelle salts, if perseveringly used, may take their place. General hygienic treatment in all cases must be insisted on.

At the same meeting, Dr. Thomas F. Rumbold, of St. Louis, read a paper entitled, "Reasons Why so many Physicians Fail in Treating Chronic Rhinitis."

The (1) is *defective instrumentation*. Not one of the physicians whose offices he had visi-

ted had a tongue depressor that would not cause the patient to retch as soon as it was introduced into the mouth. The blades of all the instruments he saw were too wide to go between the teeth, and too long—being about six inches in length. These instruments were seldom used in examinations, the exceedingly defective methods of drawing the tongue out with a napkin being employed instead.

2. The *spray-producers* used were made for watery solutions only. These physicians did not possess an instrument that could throw warm vaseline. Liquid cosmoline was found in every office. While this remedy is far superior to tannin, iodine, nitrate of silver, or any of a dozen other agents commonly found in offices, yet it is inferior to warm vaseline.

3. The *compressed air* used was taken from a container of a capacity of from three to four or five gallons. Air was forced into this reservoir to show a pressure of from thirty to seventy pounds. The reservoir was filled by an air pump whose barrel was made of brass; the piston was packed with leather, which is partially decomposed animal tissue—and it was lubricated with rancid oil of some kind. Ten pounds is the greatest pressure that the mucous membrane can stand without producing irritation, while by far the greater majority of patients require from only six to eight pounds pressure.

4. Reason for failure is an *anatomical* one. He meant by this an error in locating the disease. Innumerable clinical observations and post-mortem examinations prove conclusively that rhinal inflammation invariably commences on the superior and middle turbinated processes, and extends in all directions in the nasal passages and into the passages connected with them, except on the floor of the nasal passages or so-called inferior meatuses. These two portions are seldom affected with inflammation.

5. The *physiological* reason.

Other reasons were *pathological* and *etiological*.

Keeping in mind that every irritation produces inflammation, what are the indications for treatment of chronic rhinitis?

(a) The diseased secretion, which is always acrid, therefore irritating, should be removed. If morbid growths are present, as these also are irritating, they should be removed, thus removing the local sources of inflammation.

(b) The new secretion, that is, that which is to be formed upon the surfaces that have been cleansed, should be prevented from becoming acrid, thus preventing another cause of inflammation.

(c) Hygienic and sanative measures should be insisted upon. This is to prevent a continuance of the irritation to the sensory nerves that are located upon the surface of the body and mucous membrane by colds and other irritating agents, thus removing the original causes of the inflammation.

Dr. A. De Vilbiss, of Toledo, in opening the discussion, differed from Dr. Rumbold in that

he did not believe properly tanned leather readily decomposes. Rancid oil for lubricating the air pump is hardly ever used. Personally, he used vaseline and naphthol. With regard to vaseline, it was used as a protector to the mucous membrane on account of its density.—*Medical World, Dec., 1889.*

— O —

DR. HENRY A. LEDIARD.

CUMBERLAND INFIRMARY.

LYMPHO-SARCOMA OF TONSIL—LARYNGOTOMY AND ENUCLEATION—RECURRENT IN CERVICAL GLANDS—EXCISION—RECOVERY.

It is now more than two years since the patient whose case is here recorded by Dr. Lediard first came under his observation, and the account given below shows a successful method of removal of malignant disease of the tonsil at the age of sixty-two years. At the time of operation the growth had been in existence between two and three months, but the glandular enlargement was not marked; it was not until seven months later that the glands were removed, and the operation required for that purpose, though extensive, has fully justified its performance. Lympho-sarcoma of the tonsil is a rare disease, and shows great malignancy, tending to recur soon after removal, and infiltrates the neighboring glands at an early stage. There are few cases on record where the disease has not recurred locally or in the glands within a few months after removal. Mr. A. E. Barker's case resembles this in some respects; the patient, a man aged seventy, had a growth in his throat of three months' duration. This, a lympho-sarcoma, was removed through the mouth, and enlarged glands excised from the neck. He was alive a year afterwards. Butlin* recommends removal through the open mouth, "as removal of the disease through the mouth in suitable cases has not hitherto proved very dangerous. No case of cure can be claimed for operation through the open mouth, but several cases of relief of longer or shorter duration." He strongly recommends it, giving the mortality as 7.69 per cent., as against 20 per cent. in cases treated by removal of growths by incision from without, whether by the method of Cheevers, that of Czerny, or that of Mickulicz.

The patient's age was sixty-two, and he complained of difficulty of swallowing, the sensation being like "a lodgment in the throat." There was no appearance of ill health, neither had he lost flesh. The voice was thick, and, as far as he knew, the dysphagia was not more than of a month's duration. The right tonsil was uniformly enlarged by a growth which passed in front of and nearly concealed the uvula. To the touch the growth was soft and painless; it was of the same color as the other tonsil and palate, and had a wide attachment in the usual site of an enlarged

tonsil. It was as free behind as it was in front, and did not extend below beyond the usual limits of a much enlarged tonsil. Posteriorly, the surface was uneven; in front, it was smooth. On September 28, 1887, the patient was also seen by Mr. H. W. Page, of London. He also went to Edinburgh at Mr. Lediard's request, to consult Dr. John Duncan, who agreed upon the advisability of operation. On October 26 the patient was admitted into the Cumberland Infirmary. Dr. Sprague, who was house surgeon at the time, wrote in the hospital case-book: "On October 27 an operation was performed in the usual way, and a vulcanite tracheotomy tube introduced. The pharynx was then stuffed with a couple of sponges and chloroform continued to be administered through the tube. The tumor was then snipped round the edge with scissors and removed with the finger, easily shelling out. There was very little hemorrhage. The sponges were removed from the pharynx and the tube from the larynx, the opening into the latter being covered with dry dressing. The patient was made to breathe warm, moist air, and to rinse the mouth out with Cond's fluid. He made an uninterrupted recovery, not having had any bad symptoms except a slight hoarseness, which rapidly disappeared. The patient left the infirmary on November 7, 1887." The tumor was soft and somewhat friable; it was about the size of a large walnut, and, microscopically, consisted of a delicate network, enclosing lymphoid cells in great number. The specimen was exhibited at a meeting of the Carlisle Medical Society on February 9, 1888. At the time of operation a gland was felt on the right side of the neck, near the angle of the jaw; it was not large, and it was expected that it would subside after the removal of the tonsil. This hope was, however, futile, for on May 5, 1888, about seven months after operation, the patient came to show himself with a large swelling in the right side of the neck, behind, beneath and in front of the sterno-mastoid. His appearance was bad, he was now pale and thin. There was no regrowth in the throat, and the same gland originally felt near the angle of the jaw was present, mobile but larger. The amount of disease was so extensive that he again consulted Dr. John Duncan, who wrote his opinion in full. Dr. Duncan anticipated a possible cutting of the internal jugular vein, but upon the whole he thought the operation of removal of the glands feasible, but not one to be urged upon the patient. There did not appear to be much pain in the neck, but its lumpiness was very unsightly. On June 20, 1888, the patient was readmitted into the Cumberland Infirmary. The operation now to be performed was formidable, and Dr. Lediard was assisted by Dr. Lockie during the period of nearly two hours that was taken up by it. An incision along the posterior border of the sterno-mastoid of great length was made; the sterno-mastoid was then cut across and turned up and down, exposing a very large gland the size of a pear, which was

*Operative Surgery of Malignant Disease.

easily removed. Numerous other glands, both large and small, were then met with somewhat unexpectedly and removed; they all shelled out with remarkable ease, but all the important structures of the neck were exposed in the process. Enlarged and diseased glands passed behind the anterior border of the trapezius muscle and were removed. Diseased glands lay amongst the cords of the brachial plexus, and required shelling out. Altogether, some twenty or thirty glands of various sizes were taken away. All of them were readily shelled out when the investing connective tissue was teased away. The sterno-mastoid was then stitched together and the wound sewn up. There was not upon the whole much bleeding, as the knife was not used after the first steps of the operation. The wound healed by first intention, recovery was rapid and uninterrupted, as the patient went home on July 4, 1888. Microscopic examination showed the same structure in the glands as that of primary growth. The patient regained health and strength, and is at the present time, August, 1889, in good health and active habit.—*London Lancet*, Nov. 23, 1889.

— o —

ELECTRICAL ŒSOPHAGOSCOPE.

Dr. von Hacker presented to the Imperial Royal Society of Physicians a woman from whose œsophagus he had succeeded in removing a piece of bone by means of electrical œsophagoscopy. The attempts at extraction in the usual way failed, but the exact situation of the bone could be determined by means of the œsophagoscope.—*British Medical Journal*, Nov. 23, 1889.

— o —

NASAL DIFFERENTIATION.

By G. V. MOOLEN, M. D., Indianapolis, Ind.

Jour. Am. Med. Asso., Sept. 21 (Trans. Miss. Valley Med. Asso.) :—The author arrived at the following conclusions :

1. The nares should not be regarded as a whole in relation to etiological factors.
2. Their correct interpretation must be with regard to their anatomical and pathological characters.
3. The regions of the inferior turbinates are the seats of hypertrophies which are the essential pathological factors of hay fever.
4. The posterior tips of the inferior, and frequently middle turbinates are likewise the seat of hypertrophies which are the essential pathological factors of asthma and its congener.
5. That this is true primarily because the sensory apparatus of these parts is essentially distinct.
6. These products do not become factors in hay fever and asthma except there be a special dyscrasia.
7. Other reputed cases of asthma are associated products of hypertrophic disease of the nares and may have led to confusion as to cause,

and may possibly have been reported prematurely, if hypertrophy were not removed.

8. The anterior tips of the middle turbinate are the seat of hypertrophic diseases which produce much nerve disturbance which is attributed to various other causes.

9. By pressure of these hypertrophies on the nasal nerves we get the chief results in neuralgias in the region of distribution of the first division of the fifth pair of cranial nerves, and by obstruction of the orifices of ducts of anterior ethmoidal cells and frontal sinuses this is greatly intensified.

10. Thorough removal of these hypertrophic products is the only radical cure for these various affections.—*The Epitome*, Oct. 1889.

— o —

LARYNGECTOMY FOR CANCER.

A case of complete extirpation of the larynx for medullary cancer has lately been reported by Dr. E. Boccomini, surgeon to the Ospedale Maggiore, of Milan.* The patient, a man, aged 54, had been hoarse since August, 1887. In March, 1888, he was examined by the well-known laryngologist, Professor Labus, who pronounced him to be suffering from epithelial cancer of the right side of the larynx (vocal cord and ventricular band). "Purely by way of experiment" a course of iodide of potassium was prescribed, and when the man was admitted to the Ospedale Maggiore, on September 27, 1888, his breathing was so embarrassed that he could not lie down in bed, and sleep was impossible. Tracheotomy was at once performed, and the growth being found to have increased so much as to leave but a little chink at the posterior part of the glottis for the passage of air, it was determined to remove the larynx. The operation was performed on October 25th, the trachea being divided immediately below the cricoid cartilage. The upper cut margin of the anterior wall of the pharynx was stitched to the edges of the skin-wound, and an œsophageal tube passed in and fixed in position. The upper end of the divided trachea was plugged with iodoform gauze (respiration being carried out through the tracheotomy tube), and a dressing of the same material was placed over the wound. The patient showed hardly any sign of shock, and everything went well until the seventh day, when he complained of pain in the chest and epigastrium. This immediately ceased on the œsophageal tube being removed, and it was found that he could swallow milk, concentrated beef-tea, and wine sufficiently well to allow artificial feeding to be dispensed with. On the eighteenth day he was able to swallow solid substances like fried brain, chicken and bread; on the twenty-seventh the wound was healed, with the exception of a tiny fistula under the hyoid bone leading into the larynx. There was no trace of recurrence. Although the patient had now completely recovered, Dr. Boccomini induced him to stay in the hospital, where he

* *Gazzeta Medica Lombarda*, October 12th and 19th.

could live more comfortably than at home, and at the same time be under constant observation. For some months he remained there in perfect health, eating the ordinary "full diet" with excellent appetite, cleaning and changing the tracheotomy tube for himself, and though of course voiceless, even managing to speak so as to be intelligible at a little distance. About the middle of February recurrence took place in the neck; dysphagia came on, and the man died exhausted on April 19th, five months and twenty-four days after the operation. Up to the last he breathed through the cannula without difficulty. The disease was found by microscopic examination to be medullary cancer.—*British Medical Journal*, Nov. 23, 1889.

ANOMALOUS LOBATION OF THE HUMAN LUNG.

Departures from the usual arrangement of the structures of the human body is a subject always worthy of remark, and when these departures involve portions of the organism which are liable to be encountered during surgical operations, like the anomalous course of the obturator artery, the ordinary interest which is attached to the subject is increased in direct proportion as the practical side of the question comes promptly to the front. When it is possible through anomalous conditions to trace relationship to the lower animals, or to types of organisms other than our own, important connecting links may be forged, or distinctive differences emphasized, which lend no mean help to zoological studies. While it should always be an endeavor to keep one or both of these points in view in the presentation of anatomical anomalies, their simple record is a useful addition to our knowledge of the frequency with which deviations from usual standards occur.

We are so apt to read records of the anomalies in the course of arteries, the distribution of nerves and the insertions and positions of muscles, that atypical conditions of the organs of the human body are worthy of special notice.

W. A. Edwards (*Pacific Medical Journal*, September, 1889) recently presented to the San Diego County Medical Society an anomalous human lung, having three lobes on the left side, taken from a patient of Dr. J. P. LeFevre, in which the lobe was subdivided at about its middle into two distinct portions, the supernumerary part having been formed by fissure at the expenses of the upper lobe.

Anomalies of the lobes of the lung are stated to be more frequent upon the left than upon the right side, although in Lamb's (*Medical News*, Feb. 13, 1886) collection of 13 cases, 8 were found in the right and 5 in the left lung. A very unusual anomaly is the division of the right lung into four lobes, the accessory lobe lying below the root on the inner side and having a resemblance to the lobus impar which has been regarded as forming a distinctive difference between the lungs of quadrupeds and man. Ed-

wards has recorded one such case (*Amer. Jour. Med. Sci.*, July, 1885) and Pozzi (quoted by Edwards) another. Among the 13 cases taken by Dr. Lamb from the record of his necropsis in 3 the right lung presented four lobes, in 2 of these there were two middle lobes, and in one the additional portion was derived from the lower lobe. In accordance with a very general rule these anomalies are more frequent in the colored than in the white race; in Lamb's series 3 of the subjects were white and 10 were colored.—*University Medical Magazine*, Nov. 1889.

OZONE IN THE TREATMENT OF PHTHISIS.

Ransome (*Med. Chron.*, London, May, 1888) records the treatment of thirteen cases of pulmonary tuberculosis by the inhalation of ozone. Eight cylinders used contained seven litres of pure oxygen ozonized up to nine per cent. No other treatment was employed. The cases represented various stages of the disease, and were all under observation for more than a year. The author says that the results obtained were a continuous freedom from fever, absence of night-sweats, diminished expectoration and great gain in weight and strength.

The author believes that ozone does not act as a direct germicide, and that the control over the disease does not seem to come from any direct action upon the tubercle bacillus. It acts by restoring tone to diseased portions and has a beneficial effect on the general health.

In the paper the daily notes are given of each case. One can hardly find the author's conclusions in these notes. In one case, certainly, the inhalations caused a fresh bronchitis, and emesis also occurred in others. These patients, perhaps, would have improved quite as much if no ozone had been given, as they received good care and good food. The author offers the treatment as giving the best results as yet obtained (?).

PHYSICAL SIGNS OF PULMONARY CAVITIES.

By HENRY CONKLING, M. D.

PATHOLOGIST AND ASSISTANT VISITING PHYSICIAN TO ST. PETER'S HOSPITAL, PHYSICIAN TO THE DEPARTMENT OF CHEST, BROOKLYN CITY DISPENSARY.

Maguire (Clinical Lecture, Brompton Hosp., London, June 12, 1889; Personal Report) spoke of certain conditions that might be found in cases of pulmonary cavities. From these remarks are taken certain observations relating to the percussion-note.

There are three modifications of the percussion-note typical of pulmonary cavities:

1. *Weinbruch's Modification*.—Percussing during either act of respiration with the mouth open gives a higher pitch than when the mouth is closed. When the mouth is open, we have three cavities—nostrils, mouth and pulmonary

cavity—and the vibrations produced in this continuous tube are of different quality from those produced where the exit of the air is shut off by one or more being closed. The bronchus must have free communication with the cavity.

2. *Friedreich's Modification.*—In inspiration the note is higher than in expiration. During inspiration the chest-walls are acted upon by muscles which cause a certain amount of tension, and so raise the note.

3. *Gerhardt's Modification.*—The percussion-note is higher when upright than when lying down. The cavity must contain a certain amount of fluid. When upright, the long axis of the cavity is parallel with long axis of the body. There exists a long column of air which is set in vibration. When laying down, the relation of the axis of the cavity to that of the body is changed, and there exists merely a short column of air, the vibrations of which differ from the first. The fluid in these conditions gravitates to bottom of cavity. When upright, it occupies a small space; but when lying down, it covers, necessarily, a larger area, and produces a column of air having width, but not length.

— O —

HEMORRHAGE OF THE LARYNX.

Dr. William Porter concludes his paper on hemorrhage of the larynx as follows:

1. Laryngeal hemorrhage may occur from simple local conditions.

2. Unless associated with other and more positive symptoms, it is not indicative of pulmonary lesion.

3. It is possible, through the passing of blood from the larynx into the lungs, that pulmonary disease may be incited.

4. Care should be taken to distinguish between pulmonary and laryngeal hemorrhages, not only for the sake of more exact treatment, but especially because of the more favorable progress that may be given in many cases of the latter condition.—*N. Y. Medical Journal.*

INDEX

TO THE LATEST LITERATURE UPON THE DISEASES
OF THE NOSE, THROAT, LUNGS AND
COGNATE AFFECTIONS.

DISEASES OF THE THROAT.

CATUFFE. Hémorrhagie consécutive à l'excision de la luette. *Echo Médicale*, Toulouse, 1889, 2. s., iii, 41-43.—COHEN (J. S.) Common membranous sore throat. *New York M. J.*, 1889, xlix, 317-319.—COMPAIRDE (C.) Neuralgia faringo-laríngea (?). *Med. práct.*, Madrid, 1888-9, i, 155.—GAUTIER (V.) Des concrétions caséuses des amygdales. *Rev. méd. de la Suisse Rom.*, Genève, 1889, ix, 21-26.—KILLIAN (G.) Ueber die Bursa und Tonsilla pharyngea; eine entwicklungsgeschichtliche und

vergleichend-anatomische Studie. *Morphol. Jahrb.*, Leipzig, 1888, xiv, 618-711, 2 pl.—MOURE (E. J.) Acute oedema of the subepiglottic region and lower pharynx in a diabetic patient. *N. York M. J.*, 1889, xlix, 293.—OTTO (R.) Ueber einen congenitalen behaarten Rachenpolypen. *Arch. f. path. Anat.*, etc., Berl., 1889, cxv, 242-254.—PORCHER (W. P.) Hypertrophy of the lingual tonsil. *Med. News*, Phila., 1888, liv, 307.—RAUGÉ (H.) La maladie de Tornwaldt et la bourse pharyngée. *Bull. méd. Par.*, 1889, iii, 51-54.—SZUMLANSKI (W.) Kreolina w cierpieniach gardzieli, krtani i eszów [Creoline in diseases of the oesophagus, larynx and ear.] *Medycyna*, Warszawa, 1888, xvi, 845-850.

LARYNGOLOGY.

WALLACE (A) Observations on the vocal cords in action, taken twenty years ago. *St. Barth. Hosp. Rep.*, Lond., 1888, xxiv, 261.

DISEASES OF THE LARYNX.

ANNANDALE (T.) Intubation of the larynx and air-passages, with a description of a new instrument as an aid to certain operations. *Brit. M. J.*, Lond., 1889, i, 463-465.—BROWNE (L.) Anatomical and other facts in support of intubation. *Ibid.*, 522-524.—CARBONELL (S.) Espasmo de la glótiis de origen mecánico en una niña de nueva meses. *Cron. méd.-quir. de la Habana*, 1889, xiv, 71.—CHAUVEL. Rapport sur trois observations d'œdème aigu du larynx [par MM. Yvert, Lacronique et Audet]. *Bull. et mém. Soc. de chir. de Par.*, 1888, n. s., xiv, 846-851.—EEMAN (E. W.) Myxome hyalin de la corde vocale inférieure droite. *Rev. de laryngol.*, etc., Par., 1889, ix, 65-67.—FRÄNKEL (B.) Der Kehlkopfkrebs, seine Diagnose und Behandlung. *Deutsche med. Wchnschr.*, Leipzig, 1889, xv, 1; 28; 50; 68; 87; 109.—GLASGOW (W. C.) Cavernous angioma of the larynx; removal; with drawings and descriptions of the microscopical sections, prepared by Ludwig Bremer. *Am. J. M. Sc.*, Phila., 1889, n. s., xcvi, 360-364.—GOU-GUENHEIM (A.) Cancer of the larynx; tracheotomy; buccal perforation opening into the maxillary antrum. *N. York M. J.*, 1889, xlix, 260.—HAMILTON (J. J.) What shall we do in case of laryngeal stenosis? *Tr. Indiana M. Soc.*, Indianapolis, 1888, xxxix, 94-99.—HJORT. Sarcoma laryngis; Laryngofissio; Helbredelse. *Norsk Mag. f. Lægevidensk.*, Christiania, 1888, 4. R., iii, 969-975.—Also, *transl.*: *N. Orl. M. & S. J.*, 1888-9, n. s., xvi, 694-700.—KRAJEWSKI (W. H.) i W. Wróblewski. Rak krtani, całkowite wyciecie krtani. [Cancer of larynx; complete excision.] *Medycyna*, Warszawa, 1889, xvii, 1; 19; 49; 65; 85; 105.—LUC (H.) De l'hypertrophie fibreuse diffuse de la muqueuse laryngée; de la nature des végétations préaryténoïdiennes observées chez les phthisiques. *Arch. de laryngol.*, de rhinol. [etc.], Par., 1889, ii, 13-18.—ÓNODI (A.) Altalános ezüstkór és gégerák esete. [General argyria and cancer of the larynx.] *Orvosi hetil.*, Budapest, 1888, xxxii, 1633-1636.

Also, transl. [Abstr.] : Pest. med.-chir. Presse. Budapest, 1889, xxv, 49-52.—PALMER (L. L.) Intubation of the larynx in diphtheritic laryngitis. Canad. Pract., Toronto, 1889, xiv, 85-88.—PUTELLI (F.) Ueber Knorpelgeschwülste des Larynx. Med. Jahrb., Wien, 1889, n. F., iii, 351-374, 1 pl.—SEMON (F.) and S. G. Shattock. Subglottic alveolar sarcoma in a patient eighty-one years of age. Tr. Path. Soc. Lond., 1887-8, xxxix, 36-38. ———. Epithelioma of right half

of larynx, with epitheliomateous insula on the left vocal cord. *Ibid.*, 38-42.—SOKOLOWSKI (A.) Ueber die Heilbarkeit und örtliche Behandlung der sogenannten Kehlkopfschwindsucht. Wien. klin. Wchnschr., 1889, ii 66; 94.—THOST (A.) Die Behandlung der Stenosen des Larynx nach der Schrötter'schen Methode. Berl. klin. Wchnschr., 1889, xxxvi, 63; 92; 112.—WAXHAM (F. E.) Clinical lecture on intubation of the larynx. N. Am. Pract., Chicago, 1889, i, 106-114.

INDEX

TO

VOLUME I.

1889.

A.

- Academy of Medicine, New York, Section for Laryngology and Rhinology, p. 70.
 Actinomycosis, Pulmonary, p. 30.
 Adenoid vegetations, On the ptyalism called "Essential," a symptom of, (Cantoux), p. 73.
 Adenoid vegetations in the pharynx, p. 124.
 Addresses, Presidential address on the progress of laryngology (Sir Morrell Mackenzie, M. D., London), delivered before the British Laryngological and Rhinological Society, pp. 5, 22.
 Address, Henry T. Butlin, F. R. C. R., before the British Medical Association, Section of Laryngology, p. 203.
 Æsophagus, Resection of, p. 116.
 American Medical Association, titles of papers read before it at the fortieth annual meeting, held at Newport, R. I., June 25-28, 1889, pp. 100, 143.
 American Medical Association, pp. 100, 143, 159.
 American Laryngological Association (eleventh congress, held in Washington, D. C., May 30, 31 and June 1, 1889), p. 133.
 Anæsthesiation, On position and methods of, in naso-pharyngeal operations (J. Fred. W. Silk, M. D., London), p. 184.

- Anæsthetics in operations on the nose and throat (George Stocker, M. K. Q. C. P.), p. 110.
 Anatomy of the nasal chambers (Harrison Allen, M. D., Philadelphia), p. 68.
 Asthma, On the relation of the nasal and neurotic factors of the ætiology of, (F. H. Bosworth, M. D., N. Y.), p. 46.
 Asthma sexuelle, p. 196.
 Asthma, Inhalation of menthol in, p. 196.

B.

- Balsam of Peru, p. 148.
 Book, Notices of, p. 124.
 Breathing, Something about mountain breathing, p. 148.
 British Medical Association, Transactions of, Section of Laryngology, pp. 203, 233, 243.

C.

- Cancer, Laryngeal, p. 237.
 Casts, Bronchial, from a case of acute pneumonia, p. 172.
 Cavities, Pulmonary, A case illustrating the value of surgical treatment of, (J. D. Harris), p. 122.

Cleft palate, The mechanical treatment for congenital (Henry A. Baker, D. D. S., Boston), p. 117.

Consumption, The odor of cows and cow-stables in the treatment of, p. 80.

Consumption, A new treatment of, (Editors of the *Druggist Bulletin*), p. 98.

Cocaine, The danger from indiscriminate use of, (H. Holbrook Curtis, M. D., N. Y.), p. 227.

Cocaine habit in diseases of the throat and nose, p. 170.

Cough, Ætiological treatment of, (W. H. Thompson), p. 168.

Croup, Turpentine in, p. 170.

Cyst, Laryngeal, p. 121.

D.

Diphtheria, Hydrogen peroxide and glycozone in, p. 26.

Diphtheria, Local Treatment of, (Dr. D'Espine), p. 50.

Diphtheria, Local treatment of, p. 147.

Diphtheria, Researches upon the antiseptic effects of the medicaments used in, (Englemann, of Kreuznach), p. 80.

Diphtheria, Etiology of, (B. K. Rachford, M. D., Ohio), p. 41.

Diphtheria, Nasal, (A. Jacobi, M. D.), p. 167.

Diphtheria, A new method of treatment for epidemic, (Dr. A. Henning, Königsberg), p. 99.

Diphtheria, Differentiation of true and scarlatinal, p. 148.

Diphtheria, The prevalent treatment of, (E. R. Squibb, M. D., Brooklyn), p. 166.

Diphtheria conveyed by cats, p. 258.

Diseases with personal names, p. 73.

Dyspnœa, Dyspeptic, (W. H. Katzenbach, M. D.), p. 115.

E

Editorial notice, p. 19.

Electricity in phthisis, p. 169.

Empyema, New operation for, p. 112.

Empyema, A case of, treated by peroxide of hydrogen, p. 183.

Epistaxis, Lemon juice in, (Geneuil, of Paris), p. 80.

Epiglottitis, A new and only way of raising the, (Benj. Howard, A. M., M. D., F. R. C. S. E.), p. 59.

Erysipelas, Upon primary laryngeal, (A. Bergman), p. 116.

Erysipelas of the larynx (Max. Thorner, M. D., Cincinnati, O.), p. 187.

Eucalyptus oil in phthisis, p. 196.

Exophthalmic goitre, Cure of, p. 171.

F.

Fistule, Biliary, through diaphragm and lung (G. Carter), p. 147.

Forceps for refracture of nasal septum, p. 80.

Foreign bodies, On the removal of, from nasal cavities of children (Dr. A. Schappinger), p. 158.

Fumez la pipe, p. 254.

G.

Gangrene of the lung, operation, cure, (Alfred Shewen, M. D., Lond.), p. 255.

Gastrotomy, Two cases of, in stenosis of œsophagus, p. 198.

Glycozone in Diphtheria (Chas. Marchand, E. C. P.), p. 26.

Graves' diseases, High altitudes in, (Editors *London Lancet*), p. 78.

Graves' diasase, New sign of, (Prof. Charcot, of Paris), p. 74.

Graves' disease, The relation between and nasal obstruction, p. 168.

Guaiacal, p. 29.

H.

Hæmoptysis treated by iodoform (MM. Chauvin and Jovisenne, of Prag, Austria), p. 29.

Hair-lip, On the dangers to life in operations for, and the causes of high mortality (J. Tanberg, Fredrickshald, Norway), p. 74.

Hemorrhage, Excessive, following upon galvanocautery treatment of an hypertrophied tonsil, (Werner, in the *Wurtember Med. Correspondants Blat.*), p. 10.

Hemorrhage of the tongue, A case of fatal, (H. K. Hay, M. D.), Pennsylvania, p. 114.

Hemorrhage, Menstrual laryngeal, p. 196.

Hemorrhage of larynx, p. 268.

Hiccough and its treatment (Dr. F. W. Putnam), p. 97.

Hydrogen gas, therapeutically considered, its availability in phthisis pulmonalis, (from the French, Samuel S. Walliau, A. M., M. D.), p. 8.

Hydrogen, Peroxide of, Some clinical features of diphtheria, and the treatment by, (G. B. Hope), p. 10.

Hydrogen, Peroxide of, and glycozone in the therapeutical use of, in diphtheria (Chas. Marchand, E. C. P.), p. 26.

Hydrogen, Peroxide of, Pneumonia treated with, p. 169.

Hydrogen, Peroxide of, A case of empyema, (J. Hilgard Tyndall, M. D.), p. 183.

I.

Index to the latest literature upon the diseases of the nose, throat, lungs and cognate affections, pp. 32, 33, 52, 53, 74, 75, 76, 100, 101, 102, 125, 126, 172, 173, 196, 197, 219, 220, 243, 263, 264.

Inflammation, Effect of nasal, on the mind, (Thomas F. Rumbold, M. D., St. Louis, Mo.), p. 73.

Inhaler, A new nasal, (Beverly Robinson, M. D.), p. 99.

Injections, Mercurial, in secondary syphilitic affections of the mouth, p. 191.

International Congress of Otolology and Laryngology, p. 100.

Intra-pleural injection, p. 147.

Iodoform in homœopathy, p. 29.

Introductory, by Editor, p. 2.

Instruments, Forceps for fracture of nasal septum (George B. Hope, M. D., N. Y.), p. 30.

Intubation, A new method of feeding in cases of intubation of the larynx by position, head downward, on an inclined plane (W. E. Casselberry, M. D., Chicago), p. 49.

Intubation tube, A self-closing, (J. Mount Bleyer, M. D., New York), p. 157.

Intubation, A case of deception practised during the intubation period (J. Mount Bleyer, M. D., New York), p. 39.

Intubation, Some practical hints in connection with intubation of the larynx (Dr. J. Mount Bleyer, N. Y.), p. 70.

Intubation of the larynx, a new instrument as an aid to certain operations, p. 253.

J.

Jaws, A case of closing of the, from spastic irritation of the masseter due to irritation of an uncut wisdom tooth, p. 252.

L.

Larynx, Stenosis, p. 70.

Larynx, Granules in, (L. A. Lawrence, M. D.), p. 240.

Laryngeal tumor, p. 98.

Laryngeal phthisis, Treatment of, with calcium phosphate (R. Masucci, of Naples, Italy), p. 12.

Larynx, Angioma of, (Moreau R. Brown, M. D., Chicago), p. 30.

Laryngectomy for cancer, p. 261.

Laryngitis, Subacute, produced by iodide of potassium, p. 170.

Laryngo-pharyngotomy for tubercular tumor of the larynx, p. 118.

Lung, Anomalous lobation of the human, p. 262.

Lympho-sarcoma of tonsil, laryngotomy and enucleation, recurrence in cervical glands, excision, recovery, (Dr. A. Lediard), p. 260.

M.

Massage in paralysis of the vocal cords, p. 109.

Menthol, Inhalation of, in asthma, p. 196.

Mercuric iodide wool as an application over the chest in pulmonary troubles (E. P. Bermandy, M. D.), p. 121.

N.

Naphthol, Intra-pleural injection of, in purulent pleuritis, p. 147.

Nasal disease in general practice (N. S. Roberts, M. D., N. Y.), p. 20.

Nasal differentiation, p. 261.

Nasal passages, Diseases of, p. 259.

Nasal calculus, p. 194.

Nasal, The correction of nasal deformity by means of plastic operation, p. 123.

Nose, On the mechanism of, as regards respiration, taste and smell (Greville McDonald, M. D., London), p. 8.

Notices, Books, pp. 31, 74.

Nose, Foreign bodies in, (Frank F. Smith, A. M., M. D., of Tenn.), p. 49.

Nose and pharynx, Diseases of, and their surgical treatment (W. Cheatham, M. D.), p. 48.

Nose, Its criminal aspects, its sins, especially of commission, known as reflex neurosis, asthma, hay fever, cough, chorea, epilepsy, p. 95.

Notes, p. 150.

O.

Oesophagismus, A peculiar form of, p. 166.

Oesophagoscope, Electrical, p. 261.

Ozæna vera, p. 172.

Ozæna, Balsam of Peru in, p. 148.

Ozone and perfumes, p. 192.

Ozone in the treatment of phthisis, p. 262.

Ozonizer (Chas. Marchand), p. 50.

Oxygen in the treatment of phthisis, p. 122.

P.

Palate fissures, Treatment of congenital, (G. F. Grant, D. M. D., Boston, Mass.), p. 118.

Paralysis, Rebellious paralysis of the vocal cords cured by massage (Dr. Ramon de la Sota y Lastra, of Seville, Spain), p. 109.

Perichondritis of the Larynx, A discussion before the British Medical Association—I. F. de Havilland Hall, M. D., F. R. C. P.; II. Greville Macdonald, M. D.), pp. 215, 223, 225.

Pharyngitis, chronic, Treatment of, (Weil, Stuttgart), p. 80.

Pharynx, On resection of, p. 116.

Phlegophony, p. 167.

Photographic study of the laryngeal image during the formation of the registers in the singing voice (Thomas R. French, M. D., Brooklyn), p. 24.

Phthisical, The functions of the stomach in the, p. 188.

Phthisis, Chest measurements in, p. 195.

Phthisis, Eucalyptus oil in, p. 196.

Phthisis in armies, p. 193.

Phthisis, Lungs and liver in, p. 196.

Phthisis of the larynx, On the treatment of painful symptoms of, p. 195.

Phthisis, Premonitory symptoms of, p. 170.

Phthisis, Prevention of, p. 121.

Phthisis, Relation of dusty occupations to, p. 164.

Phthisis, Sub-oxygenated air in the treatment of, p. 195.

Phthisical, Suggestions regarding the treatment of phthisical patients at health resorts (Isaac Hull Platt, M. D.), p. 10.

Phthisical sweat, Infectivity of, p. 115.

Phthisis, Treatment by tannin (Dr. E. Hausé, Brussels), p. 99.

Phthisis, Syphilitic, (Thomas J. Mays, M. D., Philadelphia), p. 119.

Phthisis, Two cases treated by intra-pulmonary injections (Vincent Y. Bowditch, M. D.), p. 171.

Phthisis, Cultivation of vocal music in the schools as one of the means of preventing, (D. C. E. Busey, Lynchburg, Va.), p. 122.

Physical signs of pulmonary cavities (Henry Conkling, M. D.), p. 262.

Pleurisy, Pulsating, p. 120.

Pleurisy, purulent, Treatment of, by frequent punctures at short intervals, p. 148.

Pneumatic treatment in hospitals (Solomon Solis-Cohen, A. M., M. D., Philadelphia), p. 50.

Pneumonia, The cause of death in acute, p. 124.

Pneumothorax, Treatment of suffocative, by permanent thoracic fistula, p. 123.

Pneumonia, The contagiousness of, p. 123.

Pulmonary tuberculosis, The Weigert treatment of, p. 253.

R.

Resection of the ensiform cartilage (Dr. Rinonapoli, Collamele, Italy), p. 96.

Respiration by the nose and by the mouth, p. 149.

Respiration, Howard's method in suspended, (B. J. Merrill, M. D., Stillwater, Minn.), p. 191.

Respiration in anæsthesia, The treatment of obstructed, p. 254.

Rhinitis, Membranous, (Frank Hamilton Potter, M. D., Buffalo, N. Y.), p. 94.

Rhinolith, Notes on a case of, (E. Cresswell Baber, M. B., Lond.), p. 85.

Rib resection, p. 122.

S.

Sinuses, Notes on the treatment of inflammation of the frontal, (Ralph W. Seiss, M. D., Philadelphia), p. 12.

Smell, The sense of, in relation to medico-legal questions (J. Mount Bleyer, M. D., New York), p. 181.

Smoking, Cigarette, by boys, p. 198.

Speech, Disorders of, in the insane (Francis Lloyd, of Northampton), p. 73.

Sputa, The origin of, in subacute cough (W. P. Porcher), p. 117.

Sputa, On the disposal of, in phthisis (Arthur Hill Hassell, M. D., London), p. 163.

Staphylorrhaphy, Early, p. 120.

Stenosis, laryngeal, Obscure case of, tracheotomy, (Frederic Bateman, M. D., F. R. C. P.), p. 70.

Stenosis, Two cases of stenosis of œsophagus treated by gastrostomy (H. C. Garde, F. R. C. S.), p. 190.

Sub-oxygenated air in the treatment of phthisis, p. 195.

T.

Throat and nose, Examination of, of two thousand children to determine the frequency of certain abnormal conditions (W. Franklin Chappel, M. D., M. R. C. S. Eng., of New York), p. 66.

Thyroid glands, Treatment of epilepsy by galvanization of the, p. 149.

Thyrotomy in the treatment of laryngeal cancer (Sir William Stokes, M. D.), p. 237.

Tobacco chewing, Preventive influence of, in phthisis, p. 188.

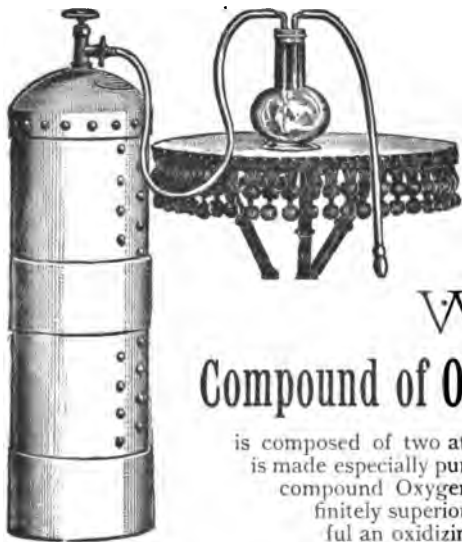
Tongue, Black, (Frederick J. Levisseur, M. D.), p. 27.

Tongue, Precancerous conditions of, (Mr. Butlin, London), p. 191.

Tongue depressor and insufflator (J. D. Osborn, M. D., New York), p. 99.

Tonsil, Sarcoma of, p. 165.

- Tonsil, Enlarged pharyngeal, in the aged (Dr. J. Solis-Cohen, Philadelphia), p. 50.
- Tonsils, enlarged, What shall we do with them? (Dr. Charles M. Shields, Richmond), p. 72.
- Tonsils, Sarcoma of, (Alexander W. MacCoy, M. D., Philadelphia), p. 72.
- Tonsils, Enlarged, and thoracic deformity (Editors of the *Journal*, Chicago), p. 97.
- Tonsils, The faucial, lingual, pharyngeal and discrete, their functions and relation to affections of the throat and nose (Scanes Spicer, M. D., Lond.), p. 86.
- Tonsillitis, Discussion on, before the British Medical Association—I. C. W. Haig-Brown, M. D.; II. Archibald E. Garrod, M. A., M. R. C. P.; III. Lennox Browne, F. R. C. S. Ed.; IV. R. Hingston Fox, M. D., M. R. C. P., pp. 206, 212.
- Tracheotomy (Joseph Collier, M. B., B. S. Lond., F. R. C. S.), p. 28.
- Tube, Self-closing, p. 157.
- Trachea, Foreign body in, p. 148.
- Tuberculous sputum, The virulence of, (Dr. De Toma, of Lesa), p. 29.
- Tuberculosis, Prophylaxis of, in Prussia, p. 118.
- Tuberculosis of the pharynx (B. Tauber, M. D., Denver, Col.), p. 28.
- Tuberculosis, A novel treatment of, p. 165.
- Tuberculosis in sleeping cars (J. W. Whittaker), p. 253.
- Tumor, A case of recurrent laryngeal (W. F. Quaife, M. D.), p. 189.
- Tumor, Tubercular, of the larynx by laryngo-pharyngotomy, with demonstration of cases (Arpad G. Gerster, M. D., New York), p. 113.
- Tumor, laryngeal, Spontaneous expulsion by coughing, p. 98.
- U.**
- Uvula, elongated, Morning sickness caused by, (S. G. Dabney, M. D., Louisville, Ky.), p. 120.
- V.**
- Vaporizer, New, p. 81.
- W.**
- Whooping cough, Antipyrine in, p. 253.



For the Treatment of
PHTHISIS,
PNEUMONIA,
 Asthmatic Bronchitis and
 Heart Failure,
WALTON'S
Compound of Oxygen and Nitrogen, Monoxide,

is composed of two atoms of Oxygen and of Nitrogen Monoxide, and is made especially pure for medical use. This agent is not the so-called compound Oxygen nor ordinary commercial Oxygen, and is infinitely superior to pure Oxygen alone, which is too powerful an oxidizing agent where there exists inflammation.

Is in use at St. Luke's Hospital and is endorsed by the leading men in the profession, among others,

DR. BEVERLY ROBINSON, New York.
 Dr. F. LEROY SATTERLEE, "
 Dr. EDWARD L. KEYES, "

Dr. J. SOLIS-COHEN, Philadelphia.
 Dr. WM. PEPPER, "
 Dr. V. Y. BOWDITCH, Boston.

Entire Apparatus sent C. O. D. to any part of the United States, Price \$10.

WALTON OXYGEN WORKS, 280 Fourth Avenue, New York.

Send for Pamphlet.

Telephone, 187, 21st.

Office never closed.

Dr. Sahli has found, both from personal experience and from numerous observations on patients, that moderate doses of antifebrin will almost invariably give great ease in cases of acute tonsillitis, thus allaying the distress of the patient and enabling him to swallow food, stimulants or medicine. The dose he employs is seven and a half grains, which he usually orders in a mixture with spirit and syrup, which must be shaken up before being taken. This is sufficiently agreeable to be taken readily even by children. Dr. Sahli mentions that he has found great benefit from this treatment in scarlatinal sore-throat.—*Medical Record*, Nov. 30, 1889.

Expiatio Universalis.

A beautiful picture, "THE BIRTH of OUR LORD," surrounded by artistically grouped translations of St. John, III, 16, in **248 LANGUAGES**. Recommended by the **CLERGY** of all **DENOMINATIONS**. Size 24x32 inches. No office should be without it. Sent on receipt of \$1.50, by

The Universal Art Publishing Co.,

AGENTS WANTED.

2 W. 14th Street, N. Y.

OUT-OF-TOWN READERS will find it to their ADVANTAGE ●●●●

to apply to our

●●●● "Purchase and Sale Department"

for the purchase and sale of Physicians' Practices, Outfits, Libraries, Instruments, Drug Stores, etc.

Being centrally located in the metropolis, we are favorably situated for transacting such business in a manner satisfactory to those who may give us a trial.

Physicians' Supply Co., 12th St. and 4th Ave., New York.



UNIVERSAL GALVANO-CAUTERY HANDLE AND SNARE.

Meyersitz Brothers.

MANUFACTURERS OF

Electro Surgical and Optical Instruments,
295 & 297 FOURTH AVENUE, Cor. 23d St.,
NEW YORK.

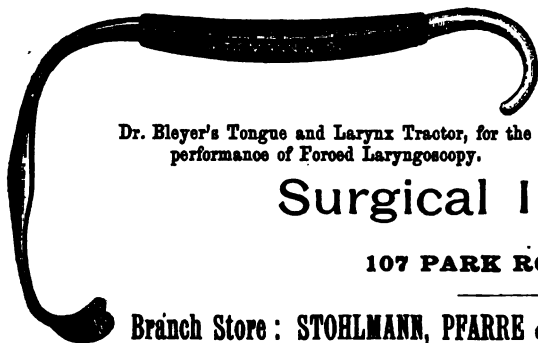
STORAGE BATTERIES

FOR

Galvano-Cautery, Electric Light and Motor Purposes..

EYE, EAR, NOSE and THROAT Instruments
A Specialty.

SEND FOR DESCRIPTIVE CIRCULARS.



Dr. Bleyer's Tongue and Larynx Tractor, for the performance of Forced Laryngoscopy.

ESTABLISHED 1826.

GEORGE TIEMANN & CO.

Surgical Instruments.

107 PARK ROW, NEW YORK.

Branch Store: **STOHLMANN, PFARRE & CO., No. 107 East 28th Street, New York.**

CH. MARCHAND'S Peroxide of Hydrogen and Glycozone.

These are the most Powerful, HARMLESS, ODORLESS of all Antiseptics known for both Internal and External use.

These cuts illustrate a well-developed case of diphtheria before and after its cure by use of CH. MARCHAND'S PEROXIDE OF HYDROGEN AND GLYCOZONE.



Magnified Diphtheric Membrane, 800 Diameters. Figure 1 shows the bacteria called micrococci. Fig. 2 shows the fibrin.



Showing the same membrane after short contact with Peroxide of Hydrogen. The bacteria are destroyed; the fibrin remains normal.

Experiments of Pasteur and others prove beyond doubt that the **Bacteria** or **Microbes** cause and develop **Diphtheria, Sore-Throat, Catarrh, Whooping Cough, Old Sores, Gangrenous Ulcers, Carbuncle, Scarlet Fever, Smallpox, Typhoid Fever**, and all other chronic affections.

Microbes are instantaneously **annihilated** when brought into contact with Ch. Marchand's Peroxide of Hydrogen or Glycozone.

I challenge any Physician or Chemist to disprove these facts, which I will publicly demonstrate every day after May 27, at my laboratory, where poor people will be cured free of charge.

OZONE

is exclusively the active principle of these two powerful, harmless Bactericides. Sold only in bottles, viz.:

PEROXIDE OF HYDROGEN.

Blue bottles, bearing yellow label, with Ch. Marchand's name and facsimile.

4-oz. bottle.....85c.
8-oz. bottle.....50c.
16-oz. bottle.....75c.

GLYCOZONE.

Flint-glass stopper bottles, bearing light cream label with facsimile.

4-oz. bottle.....\$1 00
8-oz. bottle.....1 75
16-oz. bottle.....3 00

Insist upon getting these articles, in their original packages, bearing Ch. Marchand's fac-simile, and you will never be disappointed.

Testimonials and general directions mailed free on application. These remedies are easily applied; any one can use them. Full directions with each bottle. Mention this paper. Address

THE DREVET MANUFACTURING CO.

No. 10 West 4th St., bet. Broadway and Mercer St.,

where these remedies can be procured at wholesale or retail. Sold by Leading Druggists.

IMPORTANT NOTICE TO THE PROFESSION.

Ch. Marchand's Peroxide of Hydrogen and Glycozone are intended to be used for a local antiseptic treatment. Consequently, they do not exclude the necessary internal medication which may be prescribed by the physician.

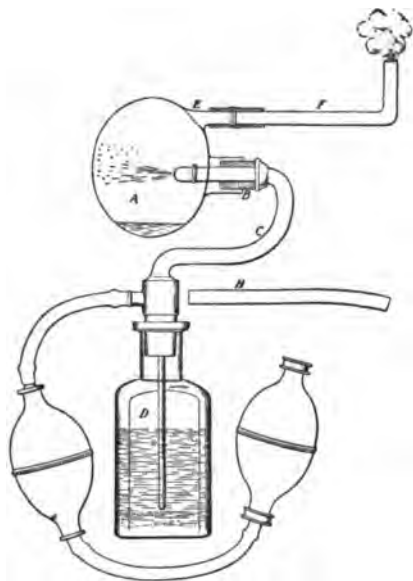
CAUTION.—No metallic substance should come in contact with Ch. Marchand's Peroxide of Hydrogen or Glycozone, except silver, gold or platinum. Ch. Marchand's Peroxide of Hydrogen or Glycozone will not deteriorate if kept in a very cool place, such as a cellar or ice-box.

DESCRIPTION

OF

Ch. Marchand's Combined Atomizer and Ozonizer.

A vaporizing glass bulb, $2\frac{1}{2}$ in. by 8 in., with two openings; B neck, $\frac{3}{8}$ in. diameter, allowing the hard rubber spray-tube C to be fastened or disconnected. E neck, $\frac{1}{4}$ in. diameter, connected by a rubber tubing, with bent glass tube F for nasal use, or with straight glass tube H for inhalation. C spray-tube which reaches the bottom of the 4 oz. square bottle D. Two rubber bulbs are attached to the air-tube. The working of this apparatus will be easily understood.



1st. Remove spray-tube C, fill up half of the bottle D with a mixture of 1 oz. Ch. Marchand's Peroxide of Hydrogen, 15 vol. medicinal, and 1 oz. C. P. Glycerine.

2d. Replace the spray tube C in position as shown in the illustration, and the apparatus will be ready to produce ozonized vapor.

By quickly pressing the terminal rubber bulb, the air is forced through the bottle D, and produces a strong spray in the bulb A; the concussion of spray against the glass pulverizes the mixture, then a large amount of dry ozonized vapor will escape in a continuous flow through the glass tube F.

During the operation a large amount of the liquid condenses in the bulb A, only a small quantity of the mixture being vaporized, although a plentiful supply of ozonized vapor is produced; when the condensed liquid in the bulb A reaches the lower part of the neck B, it should be emptied in the bottle D, by disconnecting the spray-tube C. Then reconnect the

parts and the apparatus is again ready for use. One dose of the mixture as above will last two or three days. Renew the mixture every three days.

The duration of each inhalation should not exceed 10 minutes and ought to be taken 4 to 6 times daily. Inspiration should be as deep and prolonged as possible; when taken for laryngeal medication, hold the breath and allow the vapor to remain a short time before exhaling.

If it happens that the spray-tube should get clogged up, disconnect the vaporizing bulb A, and the bottle D, unscrew the tip and blow both ways through the spray-tube, or pass a thin wire through it, as you would do for any ordinary spray atomizer.

Catarrh of the Nose will be cured by the action of ozonized vapor if applied directly through the nose passages. In cases of Chronic Catarrh, when the agglomeration of mucosities is very abundant, it is necessary before taking inhalation to cleanse the nostrils by irrigation or a liquid spray made with a mixture of 1 ounce Ch. Marchand's Peroxide of Hydrogen, 15 vol. medicinal, and 5 to 7 ounces lukewarm water.

This result can be obtained by disconnecting the bulb A, removing the straight tip shown on the cut, and screwing on the nasal tip which accompanies every apparatus.

Antiseptic medication of the middle ear by ozonized vapor inhalation is accomplished with the most gratifying results.

CAUTION.—Remain indoors for a half hour after each inhalation.

In cases of Sore Throat, Diphtheria, or any affections which require the application of a coarse spray, the apparatus should be used as an ordinary atomizer, by removing the vaporizing bulb A.

It is important to notice that this apparatus is entirely made of glass and hard rubber, as no metal should come into contact with Ch. Marchand's Peroxide of Hydrogen.

In Phthisis, deep inhalations of Peroxide of Hydrogen vapor will bring relief to some extent. To do this Ch. Marchand's Combined Hand Atomizer and Ozonizer should be used.

Asthma must be treated in the same manner as above.

Bronchitis should be submitted to the same local antiseptic treatment, with the most gratifying results.

For internal use of Glycozone in Typhoid Fever, Small-Pox, Scarletina, Measles, Whooping Cough, Dyspepsia: The dose will vary according to the age of the patient and judgment of the physician.

Dose: One teaspoonful diluted in water, taken after meals, will give very satisfactory results.

Inhalations of compound oxygen is nothing else but Monoxide of Nitrogen, and are but an empiric treatment. The momentary relief of the patient is solely due to the stimulative properties of the Monoxide of Nitrogen and not in the least to its therapeutical value

OPINIONS FROM THE MEDICAL PROFESSION.

Medical Era, Chicago, April, 1886.

"Hydrogen Peroxide," by W. W. Blackman, M. D., Brooklyn, N. Y., in the *North American Journal of Homoeopathy*.

"Abscess of the Frontal Sinus," by Dr. Goodwillie, in the *Medical Record*, February 5, 1887.

"Dioxide of Hydrogen," by Dr. J. Mount Bleyer, in the *New York Medical Record*, August 13, 1887.

"Some Clinical Notes on Diphtheria and the Treatment by Peroxide of Hydrogen," by Dr. J. B. Hope, in the *New York Medical Record*, October, 1886.

New York Medical Journal, February 2, 1889.

"Some Practical Hints in connection with Intubation of the Larynx," by J. Mount Bleyer, M. D.

"The use of Peroxide of Hydrogen and Glycozone in Therapeutics," by Ch. Marchand, E. C. P., in the *Medical World of Philadelphia*, Jan. 1, 1889.

ESTABLISHED 16 YEARS.

COLDEN'S

LIQUID BEEF TONIC

Beware of Imitations.

ORIGINAL COLDEN'S LIEBIG'S LIQUID EXTRACT OF BEEF AND TONIC INVIGORATOR. LABEL

ESSENTIALLY DIFFERENT FROM ALL OTHER BEEF TONICS. UNIVERSALLY ENDORSED BY LEADING PHYSICIANS.

This preparation, consisting of the Extract of Beef (prepared by Baron Liebig's process), the best Brandy obtainable, Soluble Citrate of Iron, Cinchona and Gentian is offered to the Medical Profession upon its own merits. It is of inestimable value in the treatment of all cases of **Debility, Convalescence from Severe Illness, Anemia, Malarial Fever, Chlorosis, Incipient Consumption, Nervous Weakness**, and maladies requiring a Tonic and Nutrient. It is quickly absorbed by the Stomach and upper portion of the Alimentary Canal, and therefore finds its way into the circulation quite rapidly.

COLDEN'S LIQUID BEEF TONIC appeals to the judgment of intelligent Physicians in the treatment of

→ **All Cases of General Debility.** ←

It is essentially a **Food Medicine** which gives **tone** and **strength** in cases where other remedies have failed or been rejected. A single trial will convince any fair-minded Physician of the value of this preparation.

By the urgent request of several eminent members of the medical profession, I have added to each wine-glassful of this preparation two grains of Soluble Citrate of Iron, and which is designated on the label, "**With Iron, No. 1**," while the same preparation, **Without Iron**, is designated on the label as "**No. 2**."

In order that Physicians unacquainted with

COLDEN'S LIQUID BEEF TONIC

may become familiar with it, we will upon application send a sample bottle free (express charges paid), to any Physician in the United States. Please ask your Dispensing Druggist (if he has not already a supply) to order it. In prescribing this preparation physicians should be particular to mention "**COLDEN'S**," viz., "**Ext. Carnis Fl. Comp. (Colden)**." It is put up in pint bottles, and can be had of **Wholesale and Retail Druggists generally throughout the United States.**

C. N. CRITTENTON,

General Agent, - - - - - 115 FULTON STREET, NEW YORK.

GLENN'S
SULPHUR SOAP.

Physicians know the great value of the local use of sulphur in the treatment of Diseases of the Skin. Glenn's Sulphur Soap is the Original and Best combination of its kind, and the one now generally in use. For sale by All Druggists.

Beware of Counterfeits.

CONSTANTINE'S
PINE TAR SOAP.

By far the Best Tar Soap made. Has been on trial among physicians for very many years as a toilet soap and healing agent, and its superior virtues have been unanimously conceded in all cases where the use of Tar is indicated. None genuine unless stamped A. A. **CONSTANTINE'S PERSIAN HEALING PINE TAR SOAP.** For sale by All Druggists.

Wholesale Depot, C. N. CRITTENTON, 115 Fulton Street, New York.

Samples of above Soaps SENT FREE, on application, to any Physician inclosing card.

